EVALUATION OF THE EFFECTIVENESS OF PROGRAMS CONTAINED IN THE "FRAMEWORK FOR COOPERATION TO REDUCE TRAFFIC CONGESTION AND IMPROVE AIR QUALITY"

Phase Three

FY2002 ATLANTA TDM FRAMEWORK
FINAL REPORT

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EVALUATION OF THE EFFECTIVENESS OF PROGRAMS CONTAINED IN THE "FRAMEWORK FOR COOPERATION TO REDUCE TRAFFIC CONGESTION AND IMPROVE AIR QUALITY"

PHASE THREE

OCTOBER 2002 ATLANTA REGIONAL COMMISSION COMMUTE CONNECTIONS RIDESHARE DATABASE PLACEMENT SURVEY FINAL REPORT

PREPARED FOR:
GEORGIA DEPARTMENT OF TRANSPORTATION

PREPARED BY:
CENTER FOR TRANSPORTATION AND THE ENVIRONMENT

IN ASSOCIATION WITH
CIC RESEARCH, INC.
AND
LDA CONSULTING

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EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of a survey of commuters participating in the Atlanta Regional Commission's Commute Connections Rideshare Program, a regional support program of the Atlanta Transportation Demand Management (TDM) Framework. The commuters surveyed are registered in the rideshare database and either received information on ridesharing, such as a list of people they could call as potential carpool partners, or information about the Guaranteed Ride Home program.

This report also presents the estimated travel and air quality emissions reductions of the rideshare database registrants using 1,375 randomly selected respondents participating in a telephone survey. The measurement team conducted two separate surveys. The first survey included a sample size of 1,000 randomly selected database registrants who entered the rideshare database or received assistance from Commute Connections during the federal fiscal year 2002 (FY2002) evaluation period (October 1, 2001 – September 30, 2002). These applicants are referred to as recent applicants. The primary purpose for surveying these applicants was to determine the percentage of database registrants shifting to alternative modes, increasing their use in alternative modes, or retaining use of alternative modes during FY2002. This sample represents a margin of error +/- 2.9% at a confidence level of 95%.

The second survey included a sample size of 375 randomly selected database registrants who entered the rideshare database prior to FY2002 (prior to October 1, 2001) and did not receive assistance during FY2002. The primary purpose for surveying these applicants was to estimate rideshare and other alternative mode longevity. These applicants are referred to as previous applicants. The measurement team decided that if previous applicants had relatively long durations in alternative modes, it would be reasonable to extend the benefits of these alternative mode users to FY2002. Typically, rideshare organizations calculate travel and emission reductions for database registrants who receive assistance or enter the database during a one-year time (recent applicants). However, the Atlanta region expressed a desire to examine and take credit for travel and air quality emission reductions beyond one year. This sample represents a margin of error of +/- 5.0% at a confidence level of 95%.

TRAVEL AND AIR QUALITY EMISSION REDUCTIONS

The FY2002 travel and air quality emissions reductions achieved by rideshare database registrants are summarized below and shown in Table A.

Commuter Placement Rates and Placements

The rideshare database included 28,123 "active" participants at the close of FY2002 (October 1, 2001 – September 30, 2002). The percentage of participants shifting to alternative modes or increasing their use in alternative modes during the FY2002 evaluation period represent the *new* placement rate. The percentage of participants using alternative modes at the time of the survey but who said they started using these modes before FY2002 (before October 1, 2001) represent the *retained* placement rate. The measurement team calculated placements rates for three modes.

The six placement rates are shown below:

· New carpool placement rate	11.2%	
· New vanpool placement rate	3.4%	22.5% overall
· New transit/non-motorized mode placement rate	7.9%	
· Retained carpool placement rate	7.5%	
· Retained vanpool placement rate	1.4%	17.3% overall
· Retained transit/non-motorized mode placement rate	8.4%	

The number of active participants, when multiplied by placements rates, provides an estimate of the total commuters placed in alternative modes. These calculations result in a total of 11,193 commuter placements in FY2002.

TABLE A: FY2002 RIDESHARE DATABASE PROGRAM TRAVEL AND AIR QUALITY EMISSION REDUCTIONS

Travel and Air Quality Emission Reduction Measures	FY2002 Results
Placement rates	**39.8%**
- New carpool placement rate	11.2%
- New vanpool placement rate	3.4%
- New transit/non-motorized placement rate	7.9%
- Retained carpool placement rate	7.5%
- Retained vanpool placement rate	1.4%
- Retained transit/non-motorized placement rate	8.4%
Commuter placements	**11,193**
- New carpool placements	3,150
- New vanpool placements	956
- New transit/non-motorized placements	2,222
- Retained carpool placements	2,109
- Retained vanpool placements	394
- Retained transit/non-motorized placements	2,362
Daily vehicle trips reduced	**6,925**
- New carpool placements	1,071
- New vanpool placements	803
- New transit/non-motorized placements	1,200
- Retained carpool placements	1,730
- Retained vanpool placements	555
- Retained transit/non-motorized placements	3,751
Daily VMT Reduced (miles)	**204,365**
- New carpool placements	24,631
- New vanpool placements	23,855
- New transit/non-motorized placements	27,354
- Retained carpool placements	45,315
- Retained vanpool placements	16,876
- Retained transit/non-motorized placements	66,334
Daily Emissions Reduced	**0.4945**
- NO_x (tons)	0.2291
- VOC (tons)	0.2654

Vehicle Trips and VMT Reduced

Vehicle trip reduction (VTR) measures the number of vehicle trips (VT) no longer made as a result of commuters shifting to alternative modes. A detailed examination of the types of changes reported by survey respondents yielded six VTR factors, one for each of the six placement rate categories. The VTR factors include:

- New carpool VTR factor: 0.34 daily one-way VT reduced per placement
- New vanpool VTR factor: 0.84 daily one-way VT reduced per placement
- New transit/non-motorized VTR factor: 0.54 daily one-way VT reduced per placement

- Retained carpool VTR factor: 0.82 daily one-way VT reduced per placement
- Retained vanpool VTR factor: 1.41 daily one-way VT reduced per placement
- Retained transit/non-motorized VTR factor: 1.08 daily one-way VT reduced per placement

These factors, when multiplied by the number of placements in their respective categories and discounted to reflect the short duration of temporary placements, equal a total daily vehicle trips reduced of 7,910 trips. Multiplying the number of vehicle trips reduced by the average commute distance for the respondents who made a commute change results in a total daily vehicle miles traveled (VMT) reduction of 204,365 miles.

Emissions Reduced

Emissions benefits, defined as tons of pollutants reduced, are calculated by multiplying regional emission factors provided by the Georgia Department of Natural Resources, Georgia Environmental Protection Division by the amount of VMT reduced. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of oxides of Nitrogen (NO_x) and Volatile Organic Compounds (VOC) is of particular concern in the region as these pollutants are the primary components in the formation of ozone. The emissions reduced equal:

NO_x – 0.2291 tons per day reduced
VOC – 0.2654 tons per day reduced } .4945 tons of pollutants per day reduced.

OTHER KEY SURVEY RESULTS – RECENT APPLICANTS

The following are survey results for respondents who received assistance from Commute Connections during FY2002 (October 1, 2001 - September 30, 2002).

Commute Travel Patterns

- A large majority (98.0%) of the respondents work full time and more than 9 out of 10 (94.2%) work a five-day week.
- One third (33.6%) of the respondents who work full time have non-standard or flexible work hours while the remaining two-thirds (66.4%) work a standard eight-hour day, five days a week.
- Most (82.4%) of the respondents working non-standard or flexible hours have core hours and flexible start and stop times.
- Driving alone in a car or motorcycle (75.8%) is the most prevalent mode of transportation among commuters using one mode five days per week. The second most prevalent mode is carpooling (11.4%).
- Approximately one in six recent applicant respondents (17.2%) participate in some sort of carpool or vanpool, while 8.3% ride the bus or train.
- The average carpool is made up of two people and the average vanpool is made up of eight people.

- More than four in ten commuters (43.2%) who ride in a carpool, vanpool, bus, or train, drive to a central location to meet their transportation, while 32.1% are picked up at home. The average travel distance to the central meeting point is 6.1 miles.

Commute Changes

- 225 survey respondents made a commute change after receiving information or assistance from Commute Connections during FY2002. These commute changes, which are referred to as new placements, include respondents who permanently or temporarily shifted to an alternative mode or increased their use in an alternative mode.
- 97 of the respondents made a permanent change, while 128 stated the change was only temporary.
- The majority (74%) of respondents making a permanent change shifted from driving alone. The remaining 26% shifted from one alternative mode to another or increased the number of days they used an alternative mode.
- About eleven percent (11.2%) joined or created a new carpool or added another person to an existing carpool or vanpool. A smaller number (3.4%) created a new vanpool or added a person to an existing vanpool.
- Respondents who made a temporary change replied the change lasted an average of 9.7 weeks. Temporary change respondents said they did not continue with their commute changes primarily because they changed jobs or had changes in other personal circumstances.
- 173 survey respondents used an alternative mode at the time of the survey but started using the mode before the FY2002 evaluation period. These respondents are referred to as retained placements. Most of these respondents (84 or 48%) use transit, bicycle/walk, telework, or work a compressed schedule. Another large segment (75 or 43%) carpool.

Use of Ridematch Information

- More than half (57.6%) of the respondents indicated receiving a matchlist with one or more matchnames, while 14.2% received a letter but no names.
- Of the respondents who received the matchlist with names, slightly more than one in four (27.6%) tried to call one or more people on the list.
- Top reasons why respondents did not contact people on the matchlist include: schedule/ work hours were not compatible and that the addresses were not close to home/work.
- About one in ten (10.1%) of the people receiving matchlists said the people they reached were interested in forming a carpool or vanpool (about 6% of total respondents).
- About 4% of the total respondents said they actually started ridesharing with someone named on the their match list.

Influence of Information and Assistance on Commute Changes

- Over half (53%) of the respondents said commute information or assistance influenced their decision to make a commute change or try an alternative mode. This information predominately came from their employer, 1-87-RIDEFIND/Commute Connections, and The Clean Air Campaign.
- 37 of the 146 respondents (25%) forming a new carpool or vanpool arrangement found new rideshare partners by contacting people on the matchlist received from Commute Connections.

OTHER KEY SURVEY RESULTS – PREVIOUS APPLICANTS

The following are survey results for respondents who entered the rideshare database before FY2002 (before October 1, 2001) and did not request assistance during the evaluation period.

Commute Travel Patterns

- The majority (97.0%) of respondents work full time and most (92.5%) work a five-day week.
- Almost four in ten (38.1%) of those who work full time have non-standard or flexible work hours while the remaining 61.9% work a standard eight-hour day, five days a week.
- Most (83.1%) of the respondents working non-standard or flexible hours have core hours and flexible start and stop times.
- Driving alone in a car (53.8%) is the most prevalent mode of transportation among respondents using one mode five days per week. The next most prevalent modes are carpooling (10.7%) and riding a train (8.0%).
- More than six in ten (61.5%) of the respondents driving alone to work every day at the time of the survey always drive alone. Slightly more than two in ten (21.9%) previously carpooled.
- About one in ten respondents (12.0%) telecommute or telework one or more days per month and 11.7% work a compressed schedule.
- More than four in ten of these respondents (43%) currently driving alone to work every day but who previously used an alternative mode said they made this change because of job changes.
- Previous applicant respondents who use alternative modes have been doing so for a long time, commuting by these modes an average of four years. Respondents riding a train have been doing so the longest, more than five years on average.

COMPARISON TO OTHER RIDESHARE PROGRAMS

- San Francisco has the highest matchlist rate (applicants requesting matchlists compared to applicants who receive matchlists) among the rideshare program comparisons, at 84%. Atlanta, New Jersey, and Washington, DC have nearly the same matchlist rate, between 58% and 59%.
- Only 28% of the applicants receiving matchnames from Commute Connections tried to contact someone on the list, compared to 40% in San Francisco, 42% in New Jersey, and, 49% in Washington, DC.
- The average overall alternative mode placement rate for the peer organizations (excluding Los Angeles) was 29.5%. Atlanta has the second lowest placement rate for new alternative mode formation (22.5% continued and temporary combined), although other regions are not significantly higher.
- The percentage of commuters in Atlanta's database who made a commute change shifted from driving alone to an alternative mode (74%). The drive alone shift is higher than other peer organizations, with only Los Angeles ranking higher (86% shift from drive alone).
- About 14% of Atlanta's rideshare database commuters making a commute change are influenced by a rideshare matchlist, closely following New Jersey (17%) and San Francisco (19%). Los Angeles (6%) and Washington, DC (8%) are at the bottom of the list for matchlist influence.

- Atlanta (26%) and Los Angeles (24%) lead the list for commuters who said they were influenced by a service provided by an employer. This is compared to 3% in Washington, DC and 6% in San Francisco.

CONCLUSIONS

Similar to other rideshare organizations across the country, only about half of Atlanta's rideshare applicants (58%) requesting matchlists during FY2002 actually received one. Another 14% received a letter, but not match names. Only about one-fourth of the applicants (28%) who received a matchlist tried to contact someone named on the list, which suggests additional efforts are needed to motivate applicants to call people on their matchlist.

The majority of respondents (84%) who tried to contact a potential rideshare partner reached people named on the list. Within this group of respondents, 44% found people interested in forming a carpool. Taking all of these actions into consideration, about 10% of people receiving a matchlist sought and found a commuter interested in ridesharing (6% of total database respondents). About 4% of total database respondents actually started ridesharing with someone named on the list.

Nearly half of the respondents (44%) who did not contact someone named on their matchlist cited incompatible work schedules or home/work addresses as the reason why they did not call anyone on the list. These responses may be due, in part, to applicant perception about work arrival and departure time flexibility, as well as the location and driving distance to meet potential rideshare partners. About 12% of respondents decided they did not want to carpool, while 11% already rideshare or found a rideshare arrangement with someone not listed on the matchlist. Another 8% said they have not gotten around to calling the people on the list and 14% need schedule flexibility or have childcare responsibilities. Many of these reasons play a factor in the number of Atlanta's rideshare database applicants shifting to or increasing use in alternative modes. It is likely that if more applicants called people on their matchlists in attempt to find a rideshare partner the Atlanta region's overall placement rate would increase substantially.

The percentage of commuters in Atlanta's database making a commute change from drive alone to an alternative mode (74%) is a positive finding for Atlanta' rideshare program. Although Atlanta's alternative mode placement is low, the types of placements occurring are generating considerable air quality benefits for the region. This high shift from driving alone is likely due to the age of Atlanta's database (program began in 1996-1997) and the relative newness of ridesharing and transportation demand management programs in the region.

Atlanta's program also performs well in the number of respondents (14%) who said a regional or local ridesharing service influenced their change and in the number of commuters who said a service provided by an employer (26%) influenced their change.

RECOMMENDATIONS

The aforementioned conclusions suggest several possible actions the Atlanta TDM Framework could take to increase the number of commuters forming alternative mode share arrangements and, specifically, rideshare arrangements. Recommendations for each action are summarized below.

Quality and Usefulness of Ridematch Information

- Expand the scope of information provided in the match letter to applicant to include more extensive information, such as HOV lane locations, transit information (transit stops close to home and work, MARTA Partnership Program information), and location of park and ride lots. Each employer outreach team should determine the most useful information to send to

commuters in their service area, incorporating special information and incentives specific to their service area when feasible.

Access to Ridematch Information

- Promote internet rideshare matching to individual commuters to enhance speed and convenience to matchlists. Internet rideshare matching is now available to individual commuters interested in ridesharing. Commute Connections, local TMAs, and The Clean Air Campaign should market this service to potential rideshare database registrants.
- Investigate employer outreach team access to database updating and matching to expedite delivery of matchlists and improve accuracy of information provided on the application form. If given database updating and matching privileges by Commute Connections, employer outreach teams could maintain the accuracy of the database contact information and expedite matchlist deliveries to employers and commuters.

Motivating Applicants to Rideshare

- Employer outreach staff directly contact applicants a few weeks after they receive a matchlist. This contact will help enhance motivation for commuters to use the ridematch information and provide them with an opportunity to request additional assistance. Calling applicants directly and holding meet-your-match events are two examples of direct contact.
- Employer outreach staff, in coordination with Commute Connections, implement a series of commute-oriented messages to keep interest high among current applicants. Employer outreach teams could tailor messages for applicants in their service area. The timing and frequency of the messages should be coordinated with Commute Connections and other partners to ensure database applicants are not inundated with information.
- Employer outreach staff and Commute Connections conduct a pilot program that targets applicant promotions to commuters who are most likely to be interested in ridematching. These promotions could be to long distance commuters, to commuters who live along an HOV route, or to commuters who are likely to travel congested routes or who work in congested areas.
- Continue to use financial incentives to encourage people to call people on their matchlist and form ridesharing arrangements. The Atlanta TDM Framework should investigate adding additional incentives to help encourage database rideshare formation.

SECTION 1 OVERVIEW

PURPOSE OF THE REPORT

The purpose of this report is to present the results of a survey of commuters participating in the Atlanta Regional Commission's Commute Connections Rideshare Program, a regional support program of the Atlanta Transportation Demand Management (TDM) Framework. This report is part of a broad evaluation of commute assistance programs and services, known as the Evaluation of the Effectiveness of Programs contained in the "Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality."

The commuters surveyed are registered in the rideshare database and either received information on ridesharing, such as a list of people they could call as potential carpool partners, or information about the Guaranteed Ride Home program. The survey assessed the travel behavior of the commuters' surveyed. The survey findings also provide a baseline against which to assess rideshare matching enhancements proposed for implementation by partners of the Atlanta TDM Framework (Framework partners) during the latter half of FY2002 and during FY2003. The survey sample included 1,375 applicants total: 1,000 of whom entered the rideshare database or received assistance from Commute Connections during the FY2002 evaluation period and 375 of who did not receive assistance during the FY2002 period, but did receive assistance some time before FY2002.

ORGANIZATION OF REPORT

The report is divided into seven sections.

- Section 1 – Purpose and organization of the report
- Section 2 – Description of the survey and sampling methodology
- Section 3 – Results of the survey of recent applicants. Tables show both the percentage results and the raw number of respondents (e.g., n = 1,000) responding to the question.
- Section 4 – Results of the survey of previous applicants. Tables show both the percentage results and the raw number of respondents (e.g., n = 375) responding to the question.
- Section 5 – Impacts of commute changes
- Section 6 – Program performance comparison with other rideshare programs
- Section 7 – Conclusions and recommendations

The report also includes appendices with the final survey instruments and the detailed travel and air quality emission reduction calculation spreadsheets.

SECTION 2 DATA COLLECTION

This section briefly describes the rideshare placement survey methodology.

QUESTIONNAIRE DEVELOPMENT

The measurement team developed the survey questionnaire with input from Framework partners and conducted the survey by telephone using a Computer Assisted Telephone Interviewing System (CATI).

SAMPLE PREPARATION

The survey included applicants from two populations in the database – "recent" applicants and "previous" applicants. Both populations were considered active participants at the time of the survey. Criteria for the "recent" applicant sample included applicants who applied to the database or received assistance during FY2002 (October 1, 2001 – September 30, 2002). Information collected from these applicants provided data for calculation of new and retained user travel and air quality emission reductions for the evaluation period. "Previous" applicants included those who applied to the database before FY2002 and did not receive additional assistance during FY2002. Data from this group provided an estimate on rideshare and other alternative mode longevity.

Commute Connections provided the survey sample at the direction of the measurement team. The measurement team eliminated duplicate records from the sample and checked for overlapping respondents between the recent and the previous applicant groups, as well as for respondents without telephone numbers. After this process, a total of 4,715 records remained, 2,537 recent applicants and 2,178 previous applicants. Table 1 below illustrates the use of the sample.

TABLE 1: USE OF RIDESHARE DATABASE SAMPLE

Records	Recent	Previous
Total Records Provided	2,537	2,178
Initial Sample Used	**2,000**	**1,075**
Replacement Sample Pulled	452	224
Duplicates*	−50	−17
Replacement Sample Used	402	207
Total Records Used	2,402	1,282

*Duplicates occurred when the replacement sample was compared against the initial sample.

The recent applicant survey sample resulted in a 50% response rate and the previous applicant survey sample a 35% response rate. The measurement team used replacement sample when invalid records were identified from the initial sample. Invalid records included the number being a FAX/modem/pager, number not in service, wrong number, blocked number, and that the respondent was no longer with the company.

Individuals in the sample received an introductory letter on Commute Connections letterhead signed by the Commute Connections Program Director to inform them of the upcoming survey and to encourage participation.

SURVEY PRE-TEST

The measurement team completed 50 surveys for each of the two applicant groups before conducting the full survey. After examining and discussing the results, the measurement team began interviewing the full sample without questionnaire modification. The measurement team performed intermediary frequencies to check potential problems in skip pattern and range conformity and to identify any anomalies. This review showed no problems and the interviewing continued.

SURVEY ADMINISTRATION

CIC Research, Incorporated (CIC), the survey administrator, conducted the survey from its in-house telephone facility in San Diego, California. CIC conducted the surveys between September 23 and October 24, 2002 for the recent applicants, and between September 30 and October 18, 2002 for the previous applicants.

Commute Connections provided the sample list, which contained either the work number or the home number or both work and home numbers for each person. Interviewers called home numbers when there was either no work number available or the work number was exhausted as a possibility.

The survey interviewing team made the majority of calls during the week, Monday through Friday 9:00 a.m. – 5:00 p.m. EST. However, interviewers made some calls as late as 8:45 p.m. as well as on weekends in an attempt to reach possible respondents at a home number. In order to make contact with as many of the original names on the sample list as possible, interviewers made up to a maximum of 25 calls to a name on the sample list prior to replacing it. In addition, interviewers provided a toll-free telephone number to potential respondents, encouraging them to call back using the toll-free line and participate in the survey.

In total, 452 telephone numbers from the recent applicant sample base and 224 numbers from the previous applicant sample base, were considered "dead", and were replaced with individuals from the replacement sample. It took an average of 5.5 calls to reach applicants in the recent applicant sample and 3.6 calls in the previous applicant sample.

Survey supervisors randomly monitored calls during the survey period. They also oversaw all interviewers, answering questions as needed. Where necessary, bilingual interviewers completed surveys in Spanish.

WEIGHTING OF THE DATA

The weighting of the survey data aligns survey results with the carpool database population. Within this population, CIC research used the interest in obtaining carpool (Match Car) or vanpool (Match Van) information to create four categories for weighting. Commute Connections indicated responses recorded as "no" for both Match Car and Match Van are people interested in obtaining Guaranteed Ride Home (GRH) information. Survey sample data were proportionally weighted by these categories. Table 2 shows the composition of the participation group.

TABLE 2: COMPOSITION OF THE PARTICIPATION GROUP

	Match Car: Yes Match Van: Yes	Match Car: No Match Van: Yes	Match Car: Yes Match Van: No	Match Car: No Match Van: No	Total
Recent Applicants	6,095	260	2,686	1,183	10,224
Previous Applicants	5,795	527	3,690	1,121	11,133
TOTAL	11,890	787	6,376	2,304	21,357

SECTION 3 SURVEY RESULTS – RECENT APPLICANTS

As mentioned previously, the survey included applicants from two populations in the database – recent applicants and previous applicants. This section presents the key results of recent applicants, applicants who applied to the database or received assistance during FY2002.

The recent applicant placement survey collected data in five primary topic areas related to commuters' travel patterns and influences on these patterns:

- Current commute patterns (commute mode, distance)
- Rideshare characteristics (pool occupancy, pool/transit meeting points, distance to meeting point, duration of rideshare use)
- Recent commute pattern changes (mode, frequency, occupancy)
- Use of and influence of commute assistance services on change

Finally, the survey examined demographic characteristics of the sampled population: age, income, ethnic group, sex, and employer size and type.

Survey results presented in the results tables show respondent percentages, but each table also shows the raw number of respondents (e.g., n=1,000). The sample size of 1,000 database registrants represents a margin of error +/- 2.9% in 95 out of 100 cases (95% confidence level). Where possible, results from the survey are compared for sub-groups of survey respondents. These comparisons are presented in the appropriate sub-sections.

The commute pattern data from the survey are used in Section 5 to calculate estimated travel and air quality emissions reductions of the applicant database services.

DEMOGRAPHIC PROFILE OF RECENT RIDESHARE APPLICANTS

The survey asked respondents several demographic classification questions: sex, age, income, and ethnic group, and questions about employer size and type.

Gender and Age

Respondents were disproportionately female (64%). As shown in Table 3, 47% of the respondents are between 35 and 49 years old and 71% are between 35 and 64 years old.

TABLE 3: AGE GROUP
(n=990)

Age Group	Percentage	Age Group	Percentage
Under 24	3%	50 – 64	24%
25 – 34	26%	65 or older	0.5%
35 – 49	47%		

Ethnic Background

Next, as shown in Table 4, Whites and African-Americans represent the two largest ethnic group categories of survey respondents, 51% and 38% respectively.

TABLE 4: ETHNIC BACKGROUND
(n=961)

Ethnic Group	Percentage	Ethnic Group	Percentage
Hispanic	3%	Asian	5%
Whites	51%	Other/Mixed	2%
African-American	38%		

Income

Table 5 provides a breakdown of respondents by household income category. About three-quarters of respondents have household incomes of $40,000 or more and 28% have incomes of $80,000 or more.

TABLE 5: INCOME GROUP
(n=904)

Income	Percentage	Income	Percentage
Less than $20,000	4%	$40,000 – 59,999	24%
$20,000 – 29,999	8%	$60,000 – 79,999	23%
$30,000 – 39,999	13%	$80,000 or more	28%

Employer Size

Table 6 presents the distribution of respondents by worksite size. Nearly two-thirds (63%) of respondents work for companies with 251 or more employees and 83% work for companies with more than 100 employees.

TABLE 6: EMPLOYER SIZE
(n=972)

Number of Employees	Percentage	Number of Employees	Percentage
1-25	5%	101-250	20%
26-50	5%	251-999	31%
51-100	7%	1,000+	32%

Employer Type

Table 7 shows the distribution of respondents by their employer type. Approximately seven in ten respondents (71%) work for private industry, while 19% percent work for a federal, state, or local government agency. About one in ten (9%) work for a non-profit organization.

TABLE 7: EMPLOYER TYPE

(n=995)

Type of Employer	Percentage	Type of Employer	Percentage
Federal government	5%	Private industry	71%
State/local government	14%	Non-profit organization	9%

CURRENT COMMUTE PATTERNS

A primary purpose of the survey was to examine current commute patterns of recent applicants: commute mode, distance, travel time, and use of telecommute and alternative work schedules.

Current Commute Mode

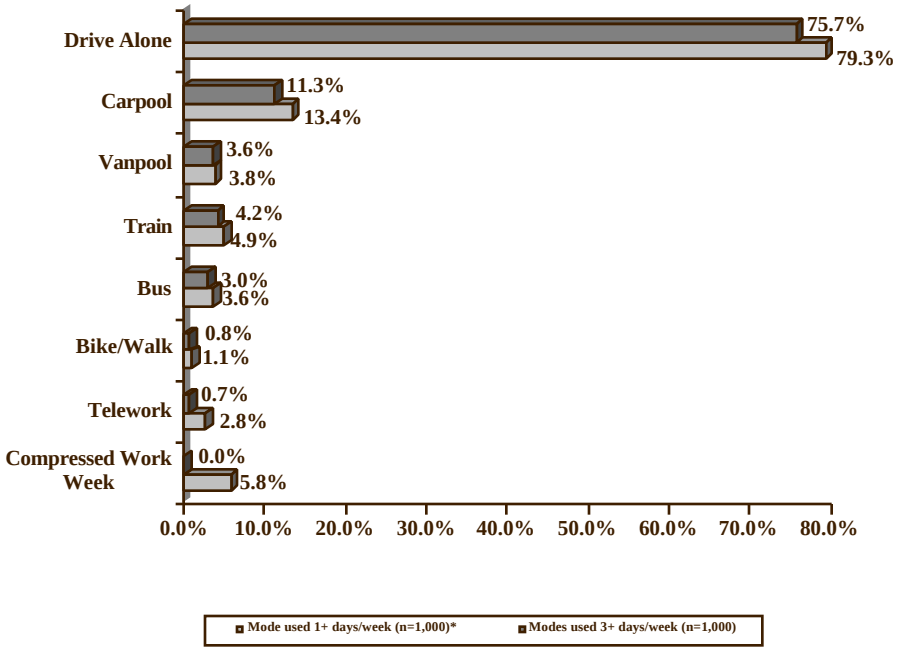
Current Mode Split by Frequency of Use – The survey asked respondents what modes they use to travel to work each day (Monday-Sunday) of the survey week. Figure 1 shows percentages of respondents who drove alone, carpooled, vanpooled, used a bus or train, and biked/walked, based on the frequency of use.

The top bar of each mode group shows the percentage of respondents who used a mode as their "primary" or "regular" mode, that is they used the mode three or more times per week. As shown, the most common primary mode was drive alone, used by 75.8% of respondents. The second most popular mode, used by 11.4% of respondents, was carpool. About four percent (3.6%) vanpooled, 3.0% rode a bus, and 4.2% rode a train. A small percentage (0.8%) biked or walked.

The bottom bar of each mode group shows the percentage of respondents who used the mode at least one day during the survey week. This category also includes respondents who said they use these modes two, three, four, five, or more times during the week. In this case, the percentages of participants using each mode increased, because some respondents who were counted in the three or more days per week category used a secondary mode in addition to their primary mode.

Drive alone was still the most popular mode; 79.3% of respondents using this mode either regularly or occasionally and carpool was still the second most popular mode, used by 13.4%. Train remained in third place, with 4.9% of respondents using this mode at least once per week.

FIGURE 1: COMMUTE MODES USED BY WEEKLY FREQUENCY OF USE



* Total will add to more than 100%; multiple responses permitted.

Commute Mode Split by Weekly Trips – Table 8 shows the percentage of weekly trips made by survey respondents in each of six commute modes: drive alone, carpool, vanpool, bus, train, and bike/walk. The table also shows the percentage of weekly "trips" not taken because the commuters telecommuted or had a compressed work schedule day off.

CHECK: TABLE 8: COMMUTE MODE SPLIT BY WEEKLY TRIPS

Commute Mode	Mode as % of Weekly trips (n=1,000)
Drive alone	75.3%
Carpool	11.2%
Vanpool	3.4%
Bus	2.8%
Train	4.1%
Bike/walk	0.9%
Telework	1.0%
Compressed work schedule	1.3%

As the table indicates, about three-quarters (74.7%) of respondents' weekly commute trips were drive alone. About one in ten (11.4%) trips were carpool. Vanpooling accounted for 3.5% of weekly trips. Seven percent of trips were bus (2.8%) or train (4.2%). Bike/walk, telecommute, and compressed work schedule each accounted for about 1% of weekly commute trips.

Frequency of Mode Use by Mode – Table 9 presents the average number of days commuters used each mode. Commuters used five of the modes four or more days per week. Commuters drove alone the most days per week. Within the alternative mode groups, vanpooling was the most regularly used mode (4.6 days per week), followed by carpooling (4.3 days per week). Commuters used other alternative modes slightly less frequently. Several of the modes had quite small sample sizes, however, and differences between the weekly average frequencies were within the range of sampling error.

TABLE 9: INDIVIDUAL COMMUTE MODES BY DAYS USED PER WEEK

Commute Mode	Average Mean Days Used
Drive alone	4.7
Carpool	4.3
Vanpool *	4.6
Bus *	4.0
Train *	4.2
Walk*	4.2
Bicycle*	3.9
Telework	1.8
Compressed work schedule*	1.2

* Caution: small sample size

Primary Commute Modes by Demographic Group

Analysis of survey data showed some differences in primary commute mode (mode used 3 or more days per week) between various demographic groups. Tables 10, 11, 12, and 13 present primary mode by respondent gender, age, income, and ethnic group categories, respectively.

Gender – As shown in Table 10, there are no significant differences in the use of modes by gender.

TABLE 10: CURRENT PRIMARY MODE (3+ DAYS) BY GENDER

Sex	Primary Commute Mode				
	Frequency	Drive alone	Carpool/ Vanpool	Transit	Bike/Walk
Female	631	75%	16%	7%	1%
Male	364	77%	14%	7%	2%

Frequency = Number of Respondents

Age – As shown in Table 11, respondents 40 years or older are the most likely group to carpool or vanpool and the youngest respondents are the group most likely to bicycle or walk.

TABLE 11: CURRENT PRIMARY MODE (3+ DAYS) BY AGE

Age Group	Primary Commute Mode				
	Frequency	Drive alone	Carpool/ Vanpool	Transit	Bike/Walk
Less than 30 years old	133	75%	12%	9%	4%
30 – 39	310	79%	13%	6%	1%
40 – 49	307	73%	17%	8%	0%
50 or more years old	240	74%	18%	7%	0%

Frequency = Number of Respondents

Income - Table 12 shows respondents with incomes greater than $40,000 drive alone more often that the other groups and use transit less. Use of carpooling and vanpooling does not vary significantly between the income distribution categories.

TABLE 12: CURRENT PRIMARY MODE (3+ DAYS) BY INCOME

Income Group	Primary Commute Mode				
	Frequency	Drive alone	Carpool/ Vanpool	Transit	Bike/Walk
Less than $40,000	224	71%	16%	12%	1%
$40,000 – 79,999	424	78%	15%	5%	1%
$80,000 or more	247	77%	14%	7%	0%

Frequency = Number of Respondents

Ethnicity – Table 13 shows primary mode for the four largest ethnic groups. Whites and African-Americans are the most likely groups to drive alone. Asian and Hispanic respondents are the most likely groups to carpool or vanpool, but these groups had quite small sample sizes. Transit use is most common among Asian and African American respondents.

TABLE 13: CURRENT PRIMARY MODE (3+ DAYS) BY ETHNIC GROUP

Ethnic Group	Primary Commute Mode				
	Frequency	Drive alone	CP/VP	Transit	B/W
White, other than Hispanic	490	79%	15%	5%	1%
Hispanic	28	63%	27%	3%	7%
Asian	47	64%	23%	11%	3%
African-American	368	75%	13%	10%	0%

Frequency = Number of Respondents

Commute Distance

Table 14 presents the distribution of distance. Commuters in the survey sample have a wide range of commute distances, ranging from less than one mile to 120 miles one-way. The average one-way commute distance for respondents is 23.8 miles.

As shown in Table 12, about one fifth (19%) of respondents commute 10 miles or less to work. About a third (31%) said they traveled between 11 and 20 miles. Nearly half (49%) commute distances greater then 20 miles.

TABLE 14: COMMUTE DISTANCE (MILES)

(n=977)

Number of Miles	Percentage	Number of Miles	Percentage
Less than 6 miles	8%	21 to 30 miles	24%
6 to 10 miles	11%	31 to 50 miles	21%
11 to 15 miles	15%	More than 50 miles	4%
16 to 20 miles	16%	**Mean distance**	**23.8 miles**

Work Schedules

The majority of respondents said they work a five-day week (94.2%). Only a small percentage (2%) said they work part time. Of those who work full time, one third (34%) have non-standard or flexible work hours. Of these respondents:

- 82% work flex-hours with core hours and flexible start and stop
- 8% work a 4-40 schedule (forty-hour week in four days)
- 7% work a 9-80 schedule (eighty hours in a nine-day period over two work weeks)
- 3% work a 3-36 schedule (thirty six hours in a three day period during a single work week)

Pool Size

The survey also collected data on occupancy and composition of carpools and vanpools and explored how ridesharers access these commute modes. Slightly more than one in eight respondents (13%) participate in a carpool and 4% participate in a vanpool. The average carpool has 2.3 people. The highest number of people in a carpool is five. Vanpool occupancy is on average 8.5 riders, including the driver.

Access to Carpools, Vanpools, and Transit

Table 15 presents how carpoolers, vanpoolers, and transit riders travel to where they meet their carpool or vanpool partners or where they start their transit trip. About eight percent said they are the pool driver or they pool with a household member. Approximately one in three (32%) are picked up at home by the car/vanpool/driver and about one in ten (9%) respondents walk or bicycle to the meeting point.

TABLE 15: MEANS OF GETTING FROM HOME TO ALTERNATIVE MODE MEETING PLACE

(n=244)

Access Mode to Alternative Mode	Percentage
Picked up at home by car/van pool driver	32%
Drive alone to driver's home	5%
Drive alone to passengers' home/driver of car/van pool	7%
Drive to a central location, like park & ride	43%
Another car/van pool, including drop off by household member	1%
Bicycle/walk	9%
Bus/transit	3%

A large portion (43%) of alternative mode users drive alone to a central meeting point. This is significant to the calculation of air quality reductions, because a large proportion of auto emissions are produced during the first few miles of a vehicle trip when the engine is cold. Even though these trips tend to be short, an average of just 6.1 miles for respondents, these trips must be accounted for in an air quality analysis.

RECENT COMMUTE CHANGES

The primary objective of the survey was to identify the extent and types of commute changes made by applicants who either entered the rideshare database or received assistance from Commute Connections during the FY2002 evaluation period. These commute changes may include an applicant permanently or temporarily shifting to an alternative mode or increasing use of an alternative mode. In addition, the survey also collected data on applicants who maintained use of a commute change made prior to FY2002.

Commute Changes

The survey asked respondents if they made any of a series of possible commute changes since receiving information from Commute Connections: joining or forming a new carpool or vanpool; adding a new rider to a carpool or vanpool; starting to use transit, bicycle, or walking; starting to telework or work a compressed work schedule; or increasing the number of days using alternative

modes. The survey asked respondents who said they had not made a change if they had tried or used a new alternative mode, even if it was only once or occasionally.

Table 16 summarizes the changes made by survey respondents who made a commute change during FY2002. Of the 1,000 respondents surveyed, 93 (9.3%) joined or created a new carpool or added another person to an existing carpool and 31 (3.1%) joined or created a new vanpool or added another person to an existing vanpool during FY2002. About 6% (57 respondents) started using transit or bicycling or walking or started teleworking or using a compressed work schedule. And 13 respondents (1.3%) were already using an alternative mode but increased the number of days per week they used it.

TABLE 16: FY2002 COMMUTE CHANGES MADE

(n=1,000)

Type of Commute Change	Frequency	Percentage
Joined or created a new carpool	88	8.8%
Added another person to existing carpool	5	0.5%
Tried carpooling	16	1.6%
Increased number of days carpooling	3	0.3%
Total carpool	**112**	**11.2%**
Joined or created a new vanpool	26	2.6%
Added another person to existing vanpool	5	0.5%
Tried vanpooling	2	0.1%
Increased number of days vanpooling	1	0.1%
Total vanpool	**34**	**3.4%**
Started using transit/teleworking/telecommuting/bike/walk	57	5.7%
Tried transit	6	0.6%
Tried bicycling/walking	2	0.2%
Tried teleworking/telecommuting	6	0.6%
Increased number of days using transit/bike/walk/TC	8	0.8%
Total transit/non-motorized modes	**79**	**7.9%**

Frequency = Number of Respondents

An additional 28 respondents said they had not made any of the abovementioned changes, but tried an alternative mode for a short time (generally less than one week). Most of these respondents said they tried carpooling, but small numbers said they tried vanpooling, transit, bicycling/walking, or teleworking.

Temporary vs. Continued Changes

Respondents who said they made the commute changes identified in Table 16 were asked if the change was "continued," that is, if they had maintained the change until the time of the survey, or "temporary," meaning they had returned to their previous commute mode. Respondents who said

they made a "continued" commute change are referred to as making a permanent commute change in this report. Of the 225 respondents who said they made a commute change during FY2002, 97 (43%) said the change was permanent and 128 (57%) said the change was temporary. Table 17 presents the results of this question. As explained later in this section, the two dominant reasons people did not continue with the commute change were job or schedule changes (34%) and other personal circumstances (23%).

The delineation between temporary and continued use is important because the temporary changes do not produce the ongoing travel and air quality emissions reductions of the permanent changes. Thus, temporary change travel and air quality emission reductions will be discounted, as described further in Section 5.

TABLE 17: PERMANENT AND TEMPORARY CHANGES FOR NEW PLACEMENTS BY MODE

Permanent vs. Temporary change	Carpool Placements		Vanpool Placements		Transit/ Non-Motorized Placements	
	Freq.	Percentage	Freq.	Percentage	Freq.	Percentage
Total	**112**	**11.2%**	**34**	**3.4%**	**79**	**7.9%**
New continued	44	4.4%	21	2.1%	32	3.2%
New temporary	68	6.8%	13	1.3%	47	4.7%

Freq. = Frequency (number of respondents)

Placement Rates

A placement rate, when multiplied by the total number of rideshare database registrants, provides an estimate of the total database registrants placed in alternative modes. The change totals shown in Tables 16 and 17 represent the "new placement rates" for respondents placed in carpool, vanpool, and transit/non-motorized modes during FY2002. These rates are summarized in Table 18.

TABLE 18: SUMMARY OF PLACEMENT RATES

Commute Change	Carpool Placements		Vanpool Placements		Transit/ Non-Motorized Placements	
	Freq.	Placement Rate	Freq.	Placement Rate	Freq.	Placement Rate
New Placements	112	11.2%	34	3.4%	79	7.9%
Retained Placements	75	7.5%	14	1.4%	84	8.4%

Freq. = Frequency (number of respondents)

Table 18 also documents three additional placement rates for recent applicants, retained placement rates for carpool, vanpool, and transit/non-motorized. These rates reflect respondents using alternative modes at the time of the survey but who started using these modes before FY2002 began. Typically, rideshare organizations calculate new placement rates only and base them on an annual evaluation period. The Atlanta region calculates a retained placement rate in an effort to capture

database registrants who received assistance from Commute Connections during FY2002 and used that assistance to maintain a commute change made before FY2002.

The survey revealed 173 retained placements. Most of these respondents (84) use transit, bicycle/walk, or telework/compressed work schedules. Another large segment of respondents carpool (75), the remaining 14 respondents vanpool. The corresponding "placement rates" for the retained placements include: 7.5% for carpool, 1.4% for vanpool, and 8.4% for transit/non-motorized modes.

Placement Status by Demographic Groups

The measurement team also examined the demographic characteristics of respondents who made continued or temporary changes during FY2002 (new placements), respondents who made commute changes before FY2002 (retained placements), and respondents who made no commute changes to see if the groups are different in fundamental ways. There were no discernable differences in gender, commute distance, or employer size. However, the measurement team did find some discernable differences in employer type:

- Respondents who work for government organizations are more likely to make changes than respondents who work for other types of organizations. About 28% of federal government workers made a continued or temporary change during FY2002 and 36% of state/local government workers made such a change. By contrast, only 20% of private industry workers and only 24% of respondents who work for non-profits made these changes during FY2002. The government agencies result is as expected, due to previous requirements for these agencies to offer certain commute assistance services.
- Government employers also are more likely to have higher rates of retained placements than other types of organizations. About a third (33%) of federal government workers and 36% of state/local government workers made a change prior to FY2002. By contrast, only 20% of private industry workers and 24% of respondents who work for non-profits made these changes.

Government related commute assistance programs have been in operation longer than many of the private sector programs as a result of a 1997 public mandate[1], which facilitated a change in the commuting behavior of employees working for state agencies in the 13-county non-attainment area. This mandate may contribute to why rideshare applicants working for government organizations are more likely to continue and maintain use of alternative modes.

Previous Mode of Commuter Who Changed Mode

The 97 respondents who made permanent commute changes during FY2002 all shifted to an alternative mode. But some of the respondents shifted from a different alternative mode, for example, from carpool to transit. Table 19 shows the number of respondents who made each of six possible changes: drive alone to rideshare, drive alone to transit, car/vanpool to transit, transit to car/vanpool, car/vanpool to car/vanpool, or transit to transit. The majority (74%) shifted from driving alone to an alternative mode. The remaining respondents (26%) either shifted from one alternative mode to another or increased the number of days they used an alternative mode.

[1] Governor Zell Miller issued an Executive Order on December 4, 1997 directing all state departments and agencies and units of the University System of Georgia located in the 13-county non-attainment to develop plans to describe how each state entity would reduce the number of SOV trips made by state employees driving to and from work by 20% on ozone action days in 1998 and by at least 20% during May 1 through September 30, 200 and all subsequent ozone seasons.

TABLE 19: MODE SHIFTS BY RESPONDENTS WHO MADE NEW CONTINUED COMMUTE CHANGES

(n=97)

Mode shifts	Percentage
Drive alone to rideshare	**74%**
Drive alone to car/van pool	51%
Drive alone to transit/bike/walk/TW	23%
Rideshare to rideshare	**26%**
Car/vanpool to transit	3%
Transit to car/vanpool	3%
Car/vanpool to car/vanpool	13%
Transit to transit (includes bike/walk/TW)	7%

Reasons for Not Continuing with Change

As noted before, some respondents said they made a change but the change was temporary. Temporary changes lasted an average of 9.7 weeks. Respondents cited various reasons why they did not continue with the new commute mode. The two dominant reasons were job or schedule changes (34%) and other personal circumstances (23%). Detailed results are shown in Table 20.

TABLE 20: MODE SHIFTS MADE BY RESPONDENTS WHO CHANGED COMMUTE MODE

(n=128)

Reasons	Percent**
Job or schedule changes	34%
Circumstantial (e.g. car became available/unavailable)	23%
Inconvenient	8%
Moved home location	8%
Took too much time	3%
Cost too much	2%
Need vehicle during/after work	2%
Vehicle became unavailable/unreliable	2%
Other*	13%

*Each response in the "Other" category was mentioned by one respondent.
**Totals add to more than 100.0% due to multiple responses.

COMMUTE INFORMATION AND SERVICES USED AND INFLUENCE ON COMMUTE DECISIONS

The survey also asked respondents their reasons for using alternative modes, their use of information provided by Commute Connections, and the influence of information or assistance services on their decision to use alternative modes.

Matchlist Contacts

All respondents were asked if they had received a matchlist from 1-87-RIDEFIND containing one or more match names. More than half of respondents (58%) received a list of names and an additional 14.2% received a letter, but with no names. Results are illustrated in Figure 2.

FIGURE 2: MATCHLIST RECEIVED FROM 1-87-RIDEFIND
(n = 1,000)

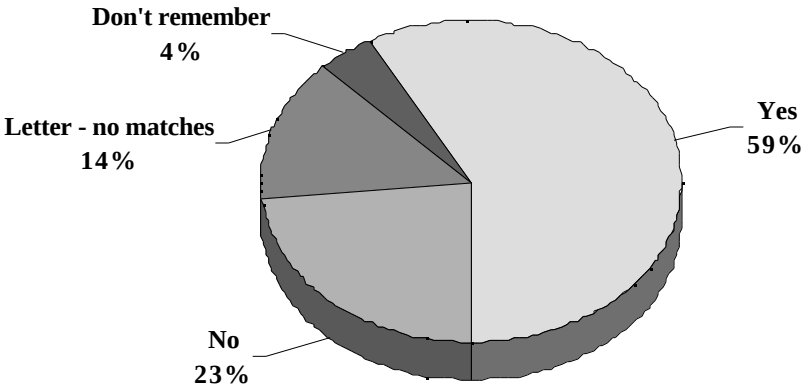


Table 21 shows actions taken by respondents who received matchnames. As noted above, about 58% of respondents received a matchlist with match names and slightly more than one in four of these respondents (28%) tried to call one or more of the people on the matchlist.

TABLE 21: ACTIONS TAKEN BY RESPONDENTS WHO RECEIVED A MATCHLIST

Matchlist Actions and Results	Yes		No/Don't know	
	Freq.	Percentage	Freq.	Percentage
Received matchnames (n=1,000)	581	58%	419	42%
Called names on matchlist (n=581)	161	28%	420	72%
Reached people on matchlist (n=161)	135	84%	26	16%
People reached interested in ridesharing (n=135)	59	44%	76*	56%

Freq. = Frequency (number of respondents)
* Includes 50 respondents whose schedules/destinations were not compatible with possible ridematch partners

The majority (84%) of respondents who tried to reach a potential rideshare partner succeeded in reaching people named on the list. Only 16% said they were unable to reach any of the people named. Within this group of 135 respondents, 59 (44%) said the people they reached were interested in forming a carpool or vanpool.

Taking all of these actions into consideration, about 10% of people who received a matchlist sought and found a commuter interested in ridesharing (6% of total respondents). About 4% of the total respondents said they actually started ridesharing with someone named on the list. These are small percentages, but the problem appears to be one of applicant motivation to contact potential rideshare partners, more than the quality of the information in the database. The overwhelming majority of respondents said they were able to reach a commuter named on the matchlist, suggesting the contact data in the database is accurate and up-to-date.

Difficulty in Reaching Matchlist Commuters – A small percentage of the respondents (16%) said they encountered difficulties in reaching the people on the matchlist. Most mentioned they left a message and did not receive a call back (73%) or the phone number was not correct or was disconnected (23%).

Reasons for Not Contacting Matchlist Commuters – Nearly three-quarters of respondents said they did not try to contact anyone on the matchlist. Table 22 presents the reasons they cited.

TABLE 22: REASONS FOR NOT CONTACTING MATCHLIST NAMES
(n = 420)

Reasons	Percent
Schedule/work hours not compatible	26%
Addresses not close to home/work	18%
Decided I didn't want to carpool	12%
Found other rideshare option/already ridesharing	11%
Haven't gotten around to it	8%
Need/want travel/work hours flexibility	8%
Child care issues	6%
Moved to new residence	2%
Found another option	2%
Changed jobs	1%
Other*	13%

*Each response in the "Other" category was mentioned by less than 1% of respondents

The fact that nearly half of the respondents listed incompatibility of schedules or home and work addresses suggests that the ridematching software is not matching commuters as precisely as they might wish. However, discussions with Commute Connections indicate otherwise. According to Commute Connections, the rideshare matching software is programmed to pick the best matches using a series of seven to nine data points, selecting matches up to a four-mile radius. Commute Connections and other Framework partners believe that the reason why respondents state incompatibility of schedules or home or work addresses has more to do with the registrants perception of work arrival and departure time flexibility and the location and driving distances to meet potential rideshare partners.

Influence of Assistance or Information

Respondents who made either a permanent or temporary commute change were asked if their decision to make the change was influenced by "any information, service, or benefit provided by 1-87-RIDEFIND, by their employer, or by another organization that helps with ridesharing." About half (53%) of the respondents who made a commute change said they were influenced. Six in ten (60%) of permanent change respondents said they were influenced. A slightly lower percentage (49%) of temporary change respondents indicated the change was influenced by a service or benefit. Respondents mentioned various services that were influential. These responses are presented in Table 23. Results are shown for both permanent and temporary change respondents.

TABLE 23: INFLUENCE OF COMMUTE INFORMATION/SERVICES ON RESPONDENTS' DECISION TO RIDESHARE

Information, Service, Benefit	Permanent Change Percentage (n=97)	Temporary Change Percentage (n=128)
Employer Information	36%	18%
Vanpooling Assistance	19%	7%
Clean Air Campaign	16%	23%
Matchlist	12%	16%
Employer Incentives/Programs	12%	7%
Guaranteed Ride Home	11%	3%
Transit Pass Discount (MARTA)	2%	3%
Rideshare Advertisements	4%	5%
Parking Fees	4%	4%
Transit Route/Schedule Info.	3%	N/A
Telecommute/Compressed schedule	2%	2%
TMA assistance	N/A	3%
Park & Ride lot map	N/A	2%
Don't Know	2%	2%
Other	14%	22%

* Will add to more than 100% due to multiple responses.

Respondents who made permanent shifts to carpool or vanpool are more likely to be influenced by the information or services than were other alternative mode users. Two-thirds (66%) of these respondents said information or services influenced their changes, compared to 16% of transit users, and 27% of respondents who bicycle or walk.

Source of Information – Respondents influenced by information, a service, or a benefit were asked who provided the information, or assistance. As shown in Table 24, information or assistance is provided primarily by respondents' employers, 1-87-RIDEFIND, Clean Air Campaign, Commute Connections, and TMAs.

TABLE 24: SOURCE OF COMMUTE INFORMATION, SERVICES, AND BENEFITS

Source	Continued Change Placements (n=97)	Temporary Change Placements (n=128)
1-87-RIDEFIND	34%	18%
Commute Connections	5%	3%
Clean Air Campaign	14%	26%
Employer	44%	32%
TMA	5%	11%

SECTION 4 SURVEY RESULTS – PREVIOUS APPLICANTS

The primary objective of surveying previous applicants – applicants who entered the database before the FY2002 evaluation period began (before October 1, 2001) and had not received assistance during the evaluation period - was to estimate rideshare and other alternative mode longevity. It was decided that if the previous applicant had relatively long durations in alternative modes, it would be reasonable to extend the benefits of these alternative mode users to the FY2002 evaluation year. Typically, rideshare organizations calculate travel and air quality emission reductions for database registrants who receive assistance or enter the database during a one-year time (recent applicants). The Atlanta region takes credit for applicants using alternative modes but who did not receive assistance or enter the database during FY2002 (previous applicants).

The survey of previous applicants collected data on applicants' current commute patterns. The survey asked respondents who currently or previously used an alternative mode how long they have been using these modes. The survey also included several questions regarding demographic characteristics of the rideshare applicants. The sample size of 375 database registrants who participated in the previous applicant survey represents a margin of error +/- 5.0% in 95 out of 100 cases (95% confidence level).

DEMOGRAPHIC PROFILE OF PREVIOUS RIDESHARE APPLICANTS

The survey asked respondents several demographic classification questions: sex, age, income, and ethnic group, and questions about employer size and type.

Gender and Age

Respondents were disproportionately female, 67% female. As shown in Table 25, 55% of the respondents are between 35 and 49 years old and 81% were between 35 and 64 years old.

TABLE 25: AGE GROUP

(n=370)

Age Group	Percentage	Age Group	Percentage
Under 24	2%	50 – 64	25%
25 – 34	18%	65 or older	0.8%
35 – 49	55%		

Ethnic Background

As shown in Table 26, Whites and African-Americans represent the two largest ethnic group categories of survey respondents, 59% and 33% respectively.

TABLE 26: ETHNIC BACKGROUND

(n=369)

Ethnic Group	Percentage	Ethnic Group	Percentage
Hispanic	1%	Asian	3%
White	59%	Other/Mixed	4%
African-American	33%		

Income

Table 27 provides a breakdown of respondents by household income category. More than four-fifths (82%) of respondents have household incomes of $40,000 or more. Nearly one third (31%) have incomes of $80,000 or more.

TABLE 27: INCOME GROUP

(n=330)

Income	Percentage	Income	Percentage
Less than $20,000	4%	$40,000 – 59,999	28%
$20,000 – 29,999	5%	$60,000 – 79,999	23%
$30,000 – 39,999	10%	$80,000 or more	31%

Employer Size

Table 28 presents the distribution of respondents by worksite size. More than two-thirds (69%) of respondents work for companies with 251 or more employees and 84% work for companies with more than 100 employees.

TABLE 28: EMPLOYER SIZE

(n=364)

Number of Employees	Percentage	Number of Employees	Percentage
1-25	4%	101-250	15%
26-50	4%	251-999	23%
51-100	8%	1,000+	46%

Employer Type

Table 29 shows the distribution of previous applicant respondents by their employer type. Three-quarters (75%) worked for private industry, while 15% worked for a federal, state, or local government agency. One in ten (10%) respondents worked for a non-profit organization.

TABLE 29: EMPLOYER TYPE

(n=374)

Type of Employer	Percentage	Type of Employer	Percentage
Federal government	5%	Private industry	75%
State/local government	10%	Non-profit organization	10%

CURRENT COMMUTE PATTERNS

The survey results or current commute patterns of previous applicants - commute mode, travel time, and use of telecommute and alternative work schedules – are presented below.

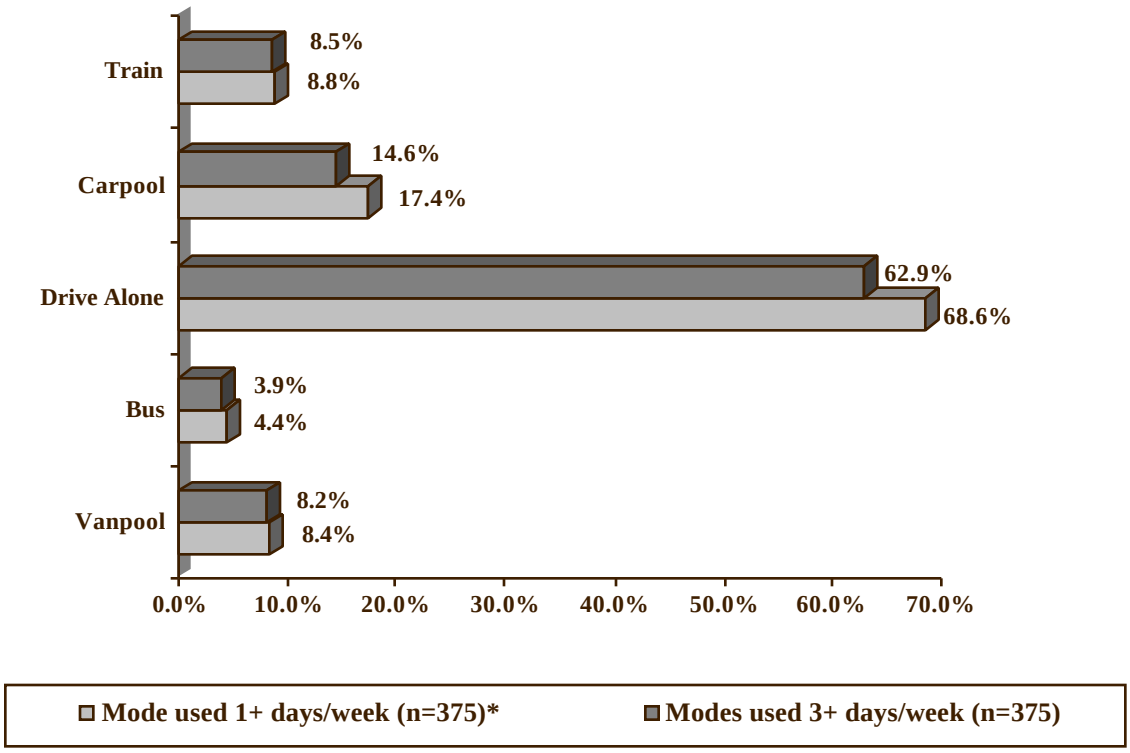
Current Commute Mode

Current Mode Split by Frequency of Use – The survey asked previous applicant respondents what modes they used to travel to work each day (Monday-Sunday) of the survey week. Figure 3 shows percentages of respondents who used drive alone, carpool, vanpool, bus, or train, based on the frequency of use. None of the respondents used bicycle or walk for commuting,

The top bar of each mode group shows the percentage of respondents who used a mode as their "primary" or "regular" mode, that is, they used the mode three or more times per week. As shown, the most common primary mode was drive alone, used by 62.9% of respondents. The second most popular mode, used by 14.6% of respondents, was carpool.

The bottom bar of each mode group shows the percentage of respondents who used the mode at least one day during the survey week. This category also includes respondents who said they used these modes two, three, four, five, or more times during the week. Drive alone was still the most popular mode; 68.6% of respondents used this mode either regularly or occasionally and carpool was still the second most popular mode, used by 17.4%.

FIGURE 3: COMMUTE MODES USED BY WEEKLY FREQUENCY OF USE – PREVIOUS APPLICANTS



Total will add to more than 100%; multiple responses permitted.

Commute Mode Split by Weekly Trips – Table 30 shows the percentage of weekly trips made by each of six commute modes: drive alone, carpool, vanpool, bus, train, and bike/walk. The table also shows the percentage of weekly "trips" not taken because the commuters telecommuted or had a compressed work schedule day off.

As the table indicates, about two-thirds (62.8%) of respondents' weekly commute trips were drive alone. About 14% of trips were carpool, and vanpooling accounted for 8.0% of weekly trips. Twelve percent of trips were by bus (3.7%) or train (8.5%). Bike/walk, telecommute, and compressed work schedule each accounted for about 1% of weekly commute trips.

TABLE 30: COMMUTE MODE SPLIT BY WEEKLY TRIPS

Commute Mode	Mode as % of Weekly trips (n=375)
Drive alone	62.8%
Carpool	14.2%
Vanpool	8.0%
Bus	3.7%
Train	8.5%
Bike/walk	0.0%
Telework	1.5%
Compressed work schedule	1.3%

Frequency of Mode Use by Mode – Table 31 presents the average number of days commuters used each mode. Commuters used five of the modes four or more days per week on average.

TABLE 31: INDIVIDUAL COMMUTE MODES BY DAYS USED PER WEEK

Commute Mode	Mean Days Used
Drive alone	4.6
Carpool	4.0
Vanpool *	4.7
Bus *	4.2
Train *	4.8
Walk*	N/A
Bicycle*	N/A
Telework*	1.5
Compressed work schedule*	1.0

* Caution: small sample size

Primary Commute Modes by Demographic Group

Analysis of survey data showed some differences in primary commute mode (mode used 3 or more days per week) between various demographic characteristics. Tables 32, 33, 34, and 35 present primary mode by respondent gender, age, income, and ethnic group categories, respectively.

Gender – As shown in Table 32, females were more likely to use alternative modes.

TABLE 32: CURRENT PRIMARY MODE (3+ DAYS) BY GENDER

Sex	Primary Commute Mode				
	Frequency	Drive alone	Carpool/ Vanpool	Transit	Bike/Walk
Female	247	61%	25%	14%	0%
Male	122	70%	20%	9%	1%

Frequency = Number of respondents

Age – As shown in Table 33, respondents 40 years or older are most likely to carpool or vanpool and the youngest respondents are most likely to take transit.

TABLE 33: CURRENT PRIMARY MODE (3+ DAYS) BY AGE

Age Group	Primary Commute Mode				
	Frequency	Drive alone	Carpool/ Vanpool	Transit	Bike/Walk
Less than 30 years old	26	65%	12%	23%	0%
30 – 39	105	70%	19%	10%	1%
40 – 49	137	68%	21%	11%	0%
50 or more years old	96	53%	33%	13%	1%

Frequency = Number of respondents

Income – Table 34 provides a breakdown of respondents by household income category. There does not appear to be a significant variation between use of alternative modes and income levels.

TABLE 34: CURRENT PRIMARY MODE (3+ DAYS) BY INCOME

Income Group	Primary Commute Mode				
	Frequency	Drive alone	Carpool/ Vanpool	Transit	Bike/Walk
Less than $40,000	58	66%	24%	10%	0%
$40,000 – 79,999	167	66%	23%	11%	1%
$80,000 or more	101	62%	23%	15%	0%

Frequency = Number of respondents

Ethnicity – Table 35 shows primary mode for the four largest ethnic groups. Hispanics and Asians are most likely to drive alone. White and African-American respondents are most likely to carpool or vanpool, but these groups had quite small sample sizes. Transit use is most common among African American respondents.

TABLE 35: CURRENT PRIMARY MODE (3+ DAYS) BY ETHNIC GROUP

Ethnic Group	Primary Commute Mode				
	Frequency	Drive alone	Carpool/ Vanpool	Transit	Bike/Walk
White, other than Hispanic	227	63%	28%	9%	0%
Hispanic	4	100%	0%	0%	0%
Asian	9	82%	9%	9%	0%
African-American	77	64%	17%	18%	1%

Frequency = Number of respondents

Work Schedules

The majority of respondents said they work a five-day week (93%) and work full time (97%). Only a small percentage (3%) said they work part time. Of those who work full time, almost four in ten (38%) have non-standard or flexible work hours. Of these respondents:

- 83% work flex-hours with core hours and flexible start and stop
- 7% work a 4-40 schedule (forty-hour week in four days)
- 10% work a 9-80 schedule (eighty hours in a nine-day period over two work weeks)

Length of Time Using Alternative Modes

The survey asked commuters who responded that they currently used or had used an alternative mode in the past the length of time they had been using these modes. The mean duration is shown in Table 36 below for all respondents, for respondents who currently use alternative modes, and for respondents who currently drive alone but used alternative modes in the past.

As shown in the "All users" columns, respondents generally are long-time users of alternative modes, commuting by these modes an average of four years. Respondents who said they rode a train used this mode the longest, more than five years (52 months) on average. Vanpoolers and bus riders also used these modes for a considerable length of time, 40 and 38 months respectively. Carpoolers and commuters working compressed work schedules used these modes for nearly three years. Teleworking was the alternative mode used the shortest length of time, although commuters used this mode nearly two year on average.

TABLE 36: LENGTH OF TIME USING ALTERNATIVE MODE

Alternative Mode	All Users		Current Users		Previous Users	
	Freq.	# of Months	Freq.	# of Months	Freq.	# of Months
Carpooling	110	34	66	42	44	22
Vanpooling	23	40	16	54	7	9
Riding the Bus	40	38	19	56	21	22
Riding the Train	60	52	32	71	28	31
Bicycling/walking	4**	5	0	N/A	4	5
Teleworking	44	20	19	25	25	18
Compressed Schedule	54	34	32	40	22	26
All modes - average	36			48		31

*Multiple response question.
** Very small sample size

The relatively long durations of the alternative mode arrangements is a positive finding for the FY2002 travel and air quality emission reduction analysis of the rideshare program. As stated previously, rideshare database travel and emission reductions are typically calculated for applicants entering a database on an annual basis. However, the alternative mode arrangement durations indicate the benefits of alternative mode placements extend beyond the one year time period, for an average length of time of three years. Thus, the measurement team can count previous applicants alternative in the FY2002 rideshare program travel and emission reduction analysis.

Reasons Respondents Did Not Continue Using Alternative Modes – The survey asked respondents who currently drive alone every day to work but who previously used an alternative mode the reasons they did not continue. As shown in Table 37, more than four in ten of these respondents (43%) did not continue using the alternative mode due to job changes.

TABLE 37 REASONS FOR NOT CONTINUING WITH ALTERNATIVE MODE (RESPONDENTS DRIVING ALONE)
(n = 106)

Reasons	Percentage
Job changes	43%
Still occasionally use alternative mode	14%
Circumstantial	13%
Too inconvenient	10%
Moved home location	10%
Took too much time	5%
Need vehicle during/after work	5%
Other/don't know*	10%

*Each response in the "Other" category was mentioned by less than 1% of respondents

SECTION 5 TRAVEL AND AIR QUALITY EMISSION REDUCTIONS

The primary purpose of this survey was to estimate the travel and air quality emission reductions of mode shifts by commuters in the database. The four key program measures used to assess mode shift travel and emission reductions from the rideshare database include:

- Placement rates and placements – Proportion and number of commuters who switch to alternative modes after receiving a rideshare service
- Vehicle trip (VT) reduction – Number of vehicles removed from the road daily by commuters who have made a shift to a alternative mode, increased the frequency of their ridesharing, or increased the occupancy of a carpool or vanpool
- Vehicle miles of travel (VMT) reduction – Number of miles of travel removed from the road daily by commuters who made a shift to a alternative mode
- Emission reduction – Daily reductions in emissions of ozone precursors (VOC) and NO_x, expressed in terms of tons per day reduced

TRAVEL AND AIR QUALITY EMISSION REDUCTIONS

The FY2002 travel and emission reductions achieved by rideshare database registrants are summarized below and shown in Table 38. Appendix B presents the detailed calculations.

Commuter Placements

The rideshare database included 28,123 "active" participants at the close of FY2002 (October 1, 2001 – September 30, 2002). The percentage of participants shifting to alternative modes or increasing their use in alternative modes during the FY2002 evaluation period represent the *new* placement rate. The percentage of participants using alternative modes at the time of the survey but who said they started using these modes before the FY2002 evaluation period (before October 1, 2001 represent the *retained* placement rate.

The six placement rates calculated from the survey data are summarized below:

New carpool placement rate	11.2%	22.5% overall
New vanpool placement rate	3.4%	
New transit/non-motorized mode placement rate	7.9%	
Retained carpool placement rate	7.5%	17.3% overall
Retained vanpool placement rate	1.4%	
Retained transit/non-motorized mode placement rate	8.4%	

The number of active database participants, when multiplied by the placements rates, provides an estimate of the total alternative mode placements. These calculations result in a total of 6,328 database participants newly placed in alternative modes (new placements) and 4,865 database participants remaining in alternative modes (retained placements) in fiscal year 2002. The placements, 11,193 in total, are summarized below:

New carpool placements	(0.112 x 28,123)	3,150	6,328
New vanpool placements	(0.034 x 28,123)	956	
New transit/non-motorized placements	(0.079 x 28,123)	2,222	
Retained carpool placements	(0.075 x 28,123)	2,109	4,865
Retained vanpool placements	(0.014 x 28,123)	394	
Retained transit/non-motorized placements	(0.084 x 28,123)	2,362	

TABLE 38: RIDESHARE DATABASE PROGRAM TRAVEL AND AIR QUALITY EMISSION REDUCTIONS

Travel and Air Quality Emission Reduction Measures	FY2002 Results
Placement rates	**39.8%**
- New carpool placement rate	11.2%
- New vanpool placement rate	3.4%
- New transit/non-motorized placement rate	7.9%
- Retained carpool placement rate	7.5%
- Retained vanpool placement rate	1.4%
- Retained transit/non-motorized placement rate	8.4%
Commuter placements	**11,193**
- New carpool placements	3,150
- New vanpool placements	956
- New transit/non-motorized placements	2,222
- Retained carpool placements	2,109
- Retained vanpool placements	394
- Retained transit/non-motorized placements	2,362
Daily vehicle trips reduced	**6,925**
- New carpool placements	1,071
- New vanpool placements	803
- New transit/non-motorized placements	1,200
- Retained carpool placements	1,730
- Retained vanpool placements	555
- Retained transit/non-motorized placements	3,751
Daily VMT Reduced	**204,365**
- New carpool placements	24,631
- New vanpool placements	23,855
- New transit/non-motorized placements	27,354
- Retained carpool placements	45,315
- Retained vanpool placements	16,876
- Retained transit/non-motorized placements	66,334
Daily Emissions Reduced	**0.4945**
- NO_x (tons)	0.2291
- VOC (tons)	0.2654

Vehicle Trips and VMT Reduced

Vehicle trip reduction measures the number of vehicle trips no longer made as a result of commuters' shifting to alternative modes. Vehicle trip reduction can occur from three types of commute changes:

- Shifts from drive alone to an alternative mode

- Shifts from one alternative mode to a HIGHER occupancy mode (e.g., from carpool to transit or from 2-person carpool to 3-person carpool)
- Increases in the number of days current ridesharers use alternative modes

The calculation of trip reduction must also account for shifts that do not reduce, and indeed may increase, the number of vehicle trips, such as shifts from one alternative mode to a LOWER occupancy alternative mode.

To simplify the travel and air quality emission reduction calculations of these various shifts, the measurement team combined the impacts of the shifts noted above and derived a vehicle trip reduction (VTR) "factor" for each placement category. These factors represent the average number of vehicle trips reduced per day by a commuter in each category. The VTR factors are shown below:

- New carpool VTR factor: 0.34 daily one-way VT reduced per placement
- New vanpool VTR factor: 0.84 daily one-way VT reduced per placement
- New transit/non-motorized VTR factor: 0.54 daily one-way VT reduced per placement

- Retained carpool VTR factor: 0.82 daily one-way VT reduced per placement
- Retained vanpool VTR factor: 1.41 daily one-way VT reduced per placement
- Retained transit/non-motorized VTR factor: 1.08 daily one-way VT reduced per placement

These factors, when multiplied by the number of placements in their respective categories and discounted to reflect the short duration of the placements, equal a total daily vehicle trips reduction of 7,910 trips. Multiplying the number of vehicle trips reduced by the average commute distance for the respondents making commute changes results in a total daily vehicle miles traveled (VMT) reduction of 204,365 miles.

Emissions Reduced

Emissions benefits, defined as tons of pollutants reduced, are calculated by multiplying regional emission factors provided by the Georgia Department of Natural Resources, Georgia Environmental Protection Division by the amount of VMT reduced. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of oxides of Nitrogen (NO_x) and Volatile Organic Compounds (VOC) is of particular concern in the region as these pollutants are the primary components in the formation of ozone.

For 2002, the emission factors are:

NO_x	=	1.150 grams per vehicle mile reduced
VOC	=	1.332 grams per vehicle mile reduced

These factors, when multiplied by the vehicle miles reduced and adjusted to account for the length of drive alone trips to rideshare and transit meeting points, equal:

- NO_x 0.2291 tons per day reduced
- VOC 0.2654 tons per day reduced

} 0.4945 tons pollutants per day reduced.

The emission reduction calculation is shown in Appendix B.

SECTION 6 PROGRAM PERFORMANCE COMPARISONS WITH OTHER RIDESHARE PROGRAMS

This section provides a comparison of Atlanta's rideshare program with several other regional rideshare programs that have collected similar data: New Jersey (state-wide), Washington DC, San Diego, San Francisco/Bay Area, Los Angeles, and Denver. Due to the absence of some data, not all regions are included in each comparison. In comparison to Atlanta, many of these programs are older or are located in areas where ridesharing is more attractive, such as congested areas and areas with higher parking prices and parking shortages. These differences impact the ability of the measurement team to make direct comparisons between the programs. However, a comparison of the regional programs does offer insight into the differences among the programs and potential ways Atlanta can enhance its rideshare program in the future.

APPLICATION AND MATCHLIST COMPARISON

Table 39 presents results on four measures: the number of commuters entered in the database, the number of rideshare applications received annually, the percent of applicants who receive a matchlist, and the percentage of these commuters who call one of the potential ridematch applicants listed on the matchlist.

TABLE 39: RIDESHARE PROGRAM PERFORMANCE COMPARISON

Program Results	Atlanta	Los Angeles	New Jersey	Washington DC	San Francisco
Database size	24,622	277,000	N/A	17,000	15,000
Annual applications	6,500	181,295	14,900	21,000	N/A
Applications per 1,000 employees	2.9	23.3	4.6	7.8	N/A
Received matchlists	58%	66%	59%	59%	84%
Called matchname	28%	14%	42%	49%	40%

Source: Los Angeles – LDA Consulting & Strategic Consulting & Research, 2002
NJDOT – LDA Consulting & Public Opinion Research, 2001
Washington DC – LDA Consulting & CIC Research, 2002
San Francisco – RIDES, 2001

Database Size and Annual Applications

One might expect a large database would enable a rideshare agency to provide matchlists to a larger percentage of commuter applicants, resulting in a higher match rate than a small database. Yet match rate comparisons across the five peer programs reveal the largest match rate occurring in the region with the smallest database.

It might also seem a large database would enable a rideshare agency to offer more matchnames to each applicant. But a three-year study conducted by RIDES for Bay Area Commuters in the San Francisco area found no correlation between the size of the database and the number of matches matches or match names (RIDES, 2002).

The number of applications received as a function of the population the rideshare agency serves provides a good indication in the overall database registration level. As shown in Table 39, Atlanta receives about 2.9 applications each year per 1,000 employees, compared with 4.6 applications for New Jersey and 7.8 applications per 1,000 applicants in Washington DC. Los Angeles receives 23.3

applications per 1,000 employees, but Los Angeles collects applications via a mandatory employee travel survey. These applicants are not entered in the database as a result of their interest in ridesharing.

Applicants' Use of Matchlist Information

Another interesting comparison is the percentage of ridematch recipients who use the matchlist information. The placement survey showed only 28% of applicants who received ridematch names from Commute Connections tried to contact someone on the list. This number does not compare favorably to San Francisco (40%), New Jersey (42%), or Washington DC (49%). Only Los Angeles had a lower rate of use, related substantially to the method the region uses to obtain ridematch applications.

PLACEMENT COMPARISON

Table 40 shows results for four additional measures: placement rates, the total number of commuters placed, the percentages of commuters who made various types of mode shifts, and the percentage of commuters who said ridematches or information offered by an employer influenced their decision to rideshare.

TABLE 40: RIDESHARE PLACEMENT COMPARISON

Placement Results	Atlanta	Los Angeles	New Jersey	Washington DC	San Francisco	Denver
Placement rates						
- New placements	22.5%	8.8%	37.6%	36.7%	30.7%	23.4%
- Retained placements[1]	17.3%	N/A	N/A	N/A	N/A	N/A
Commuter Placements						
- New placements	5,540	15,954	6,711[2]	8,647	----	----
- Retained placements[1]	4,260	N/A	N/A	N/A	N/A	N/A
Mode Shifts						
- Shifts from DA-RS	74%	86%	55%	36%	----	----
- Shifts from RS-RS	26%	14%	45%	64%	----	----
"Influenced" commuters						
- Matchlist	14%	6%	17%	8%	19%	----
- Employer service	26%	24%	N/A	3%	6%	----

(1) Other regions do not calculate rates for retained placements
(2) Includes 1,079 non-database placement generated through other activities

Source: Los Angeles – LDA Consulting & Strategic Consulting & Research, 2002
NJDOT – LDA Consulting & Public Opinion Research, 2001
Washington DC – LDA Consulting & CIC Research, 2002
San Francisco – RIDES, 2001
San Diego – SANDAG staff, 2002
Denver – Ride Arrangers staff, 2002

Placement Rates

Of the six rideshare agencies profiled, Atlanta has the second lowest placement rate for new rideshare formation (continued and temporary combined). Three of the regions, New Jersey, Washington DC, and San Francisco, have higher rates, although not dramatically higher. Denver's rate is approximately the same as Atlanta's; Los Angeles has a much lower rate and indeed one of the lowest placement rates of all rideshare programs with published placement results. The average overall rate for the five peer organizations (excluding Los Angeles) is 29.5%. Los Angeles was excluded from this comparison because the majority of their ridematch applications are collected via a mandatory employee travel survey. As a result, these applicants are not entered in the database because of an interest in ridesharing.

The lower placement rates in Atlanta are likely related to the lower incidence of matchlist use. If recipients do not try to contact potential ridesharers, they will not form ridesharing arrangements with others in the database, although some may form arrangements with others outside the database.

Mode Shifts

Another program performance measure is the mix of placements between "new" ridesharers, that is commuters who drove alone before, and "maintenance" placements, commuters who shifted from one alternative mode to another. Maintenance of ridesharing is an important function of a rideshare program. The type of mode shifts is an important distinction, because a shift from one alternative mode to another has less of an impact on congestion and air quality than does a shift from driving alone.

On this measure, Atlanta's 74% shift from drive alone ranks quite high among its peers, with only Los Angeles ranking higher at an 86% shift from drive alone. About half (55%) of the commuters in the New Jersey database shifted from drive alone. Only about one-third of the Washington DC commuters shifted from drive alone. It should be noted that 30% of the Washington DC survey includes a substantial portion of applicants who apply only to receive GRH. They must be ridesharing when they register, so any shifts that they make must be from one alternative mode to another.

"Influenced" Commuters

Finally, Table 40 also shows the percentage of ridesharers who said that their decision to rideshare was influenced by either a service provided by the rideshare program or by an employer. On this measure, Atlanta appears to perform quite well, with 14% of commuters who made a change saying their change was influenced by a rideshare matchlist. Los Angeles and Washington DC are at the bottom of the list for matchlist influence, only 6% and 8%, respectively, of commuters mentioned this, compared to 17% in New Jersey and 19% in San Francisco.

The matchlist figure is contrasted with the much higher percentage of commuters who said they were influenced by a service provided by an employer. In this category, Atlanta and Los Angeles lead the way, with 26% and 24%, respectively, compared to 3% in Washington DC and 6% in San Francisco. The Los Angeles result is likely due, at least in part, to the employer regulation that requires employers with 250 or more employees to provide worksite services. It also is possible some of the commuters who mentioned an "employer service" actually used a service from Commute Connections, which was delivered or distributed by the employer or through a TMA.

SECTION 7 CONCLUSIONS AND RECOMMENDATIONS

Previous sections of this document present the survey findings, performance measure evaluation, and comparisons of Commute Connections performance results with other peer organizations. The final question is, "do these results suggest any need or opportunity to improve rideshare program services". Overall observations and recommendations are presented below.

CONCLUSIONS

Similar to other rideshare organizations across the country, only about half of Atlanta's rideshare applicants (58%) requesting matchlists during FY2002 actually received one. Another 14% received a letter, but not match names. Only about one-fourth of the applicants (28%) who received a matchlist tried to contact someone named on the list, which suggests additional efforts are needed to motivate applicants to call people on their matchlist.

The majority of respondents (84%) who tried to contact a potential rideshare partner reached people named on the list. Within this group of respondents, 44% found people interested in forming a carpool. Taking all of these actions into consideration, about 10% of people receiving a matchlist sought and found a commuter interested in ridesharing (6% of total database respondents). About 4% of total database respondents actually started ridesharing with someone named on the list.

Nearly half of the respondents (44%) who did not contact someone named on their matchlist cited incompatible work schedules or home/work addresses as the reason why they did not call anyone on the list. These responses may be due to applicant perception about work arrival and departure time flexibility, as well as the location and driving distance to meet potential rideshare partners. About 12% of respondents decided they did not want to carpool, while 11% already rideshare or found a rideshare arrangement with someone not listed on the matchlist. Another 8% said they have not gotten around to calling the people on the list and 14% need schedule flexibility or have childcare responsibilities. Many of these reasons contribute to the number of Atlanta's rideshare database applicants shifting to or increasing use in alternative modes during FY2002. It is likely that if more applicants called people on their matchlists in attempt to find a rideshare partner the Atlanta region's overall placement rate would increase substantially.

The percentage of commuters in Atlanta's database making a commute change from drive alone to an alternative mode (74%) is a positive finding for Atlanta' rideshare program. Although Atlanta's alternative mode placement is low, the types of placements occurring are generating considerable air quality benefits for the region. This high shift from driving alone is likely due to the age of Atlanta's database (program began in 1996-1997) and the relative newness of ridesharing and transportation demand management programs in the region.

Atlanta's program also performs well in the number of respondents (14%) who said a regional or local ridesharing service influenced their change and in the number of commuters who said a service provided by an employer (26%) influenced their change.

RECOMMENDATIONS

One purpose of the placement survey is to identify opportunities to improve the effectiveness of the rideshare matching program. By "improving effectiveness" the measurement team means increasing the number of commuters who form ridesharing arrangements after receiving information and/or increasing the travel and air quality emissions reductions of commuters' shifts to ridesharing. The conclusions drawn from the survey and the comparison of Commute Connections' program to other rideshare agencies suggest several actions the Atlanta TDM Framework could take to improve the rideshare program results.

Quality and Usefulness of Ridematch Information

The survey results suggest the contact information in the database is generally accurate and up to date, but several actions could be implemented to increase the usefulness of the information provided to commuters. These actions could increase the percentage of applicants who find a rideshare partner.

- Expand the scope of information provided to applicants – Typically, ridematch letters sent to applicants include only the names of potential carpool partners and vanpool information. It is possible to provide more extensive information, such as HOV lane locations, transit information (transit stops close to home and work, MARTA Partnership Program information), and location of park and ride lots with these letters. Rideshare agencies in several metropolitan areas, including Washington DC, Houston, Minneapolis, Los Angeles, and Phoenix offer one or more of these additional information items to all applicants. Surveys conducted in Washington DC and Los Angeles show additional information can introduce an applicant to services and facilities he or she did not know existed and offer suggestions for travel modes the applicant had not previously considered. In the Washington, DC survey, about 26% of applicants remembered receiving the information and more than three-quarters (77%) of these applicants said they used the information to try transit. Commute Connections, TMAs, and The Clean Air Campaign (including the marketing and public outreach arms of The Clean Air Campaign) should work jointly to expand the scope of information provided to applicants.

Access to Ridematch Information

- Enhance speed and convenience to matchlists – Commute Connections offers several options for submitting ridematch applications, including calls directly to Commute Connections, applications submitted through employers or TMAs, and individual commuter applicant submittal or matching on line. Directly contacting Commute Connections provides a fairly quick turn-around time for commuters and the on-line option provides instant ridematching. Submittal through an employer or TMA takes more time, because the application passes through several hands to get to Commute Connections. Greater use of the internet for both regular submittals and on-line matching could speed application intake and delivery of matchlists to individual commuters. Additionally, it would reduce the cost of producing ridematch lists and facilitate updating of database information. Commute Connections, local TMAs, and The Clean Air Campaign (including the marketing and public relations arm of The Clean Air Campaign) should work jointly to market and encourage individual commuters' use of internet rideshare matching services.

- Expand access to the ridematch database to local organizations – Commute Connections should expand access to the rideshare database to local employer outreach organizations. Several regions (Washington, DC, Phoenix, and San Diego) allow employers, TMAs, and local jurisdictions access to the rideshare database for entering, matching, and updating records. Providing access to employer outreach teams would allow employers to provide matchlists more quickly. Additionally, employer outreach teams could use this process to help to verify the accuracy of information provided on the application form.

Motivating Applicants to Rideshare

One concern raised by the survey results was that only about one fourth (28%) of applicants who received a matchlist tried to contact someone named on the list. And more than half (56%) of those who did try to contact someone said they were not able to find anyone interested in carpooling. These findings suggest additional efforts need to be made to motivate applicants to call people on their matchlist. Several actions that might motivate applicants to call people on their matchlist are listed below:

- Institute follow-up contacts to rideshare applicants – Several studies document that follow-up contacts with rideshare applicants can increase rideshare placement rates. Employer outreach teams, in coordination with Commute Connections, could use limited and/or targeted follow-up to offer additional assistance to applicants. This interaction should enhance the applicants' motivation and provide them with an opportunity to request additional assistance, if needed.

  Direct contact with applicants a few weeks after they receive a matchlist would provide added motivation for these commuters to use the ridematch information and give them an opportunity to ask for additional assistance. Calling database applicants directly or holding meet-your-match events are one example of direct contact.

  Employer outreach teams, in coordination with Commute Connections, should also implement a series of brief commute-oriented messages for all applicants in their respective service areas in addition to the current quarterly newsletter they receive from Commute Connections. A TMA in New Jersey developed such a program to keep interest high among current applicants. Employer outreach teams could send commuters the messages by broadcast email or by post/mail, depending on the commuters' preferred correspondence option. The timing and frequency of the messages should be coordinated with Commute Connections and other partners to ensure database applicants are not inundated with information.

- Target commuters who are likely to be most interested in ridesharing – Employer outreach teams conduct a pilot program that targets applicant promotions to commuters who are most likely to be interested in ridematching. These promotions could be to long distance commuters, to commuters who live along an HOV route, or to commuters who are likely to travel congested routes or who work in congested areas.

- Use financial incentives to encourage database applicants to call people on their matchlist – In a region where parking is readily available and traffic congestion may not be bad enough for people to change their commute behavior, financial incentives are a great motivator to prompt people to try commute alternatives. The Atlanta TDM Framework should continue to use financial incentives to encourage people to call people on their matchlist and form ridesharing arrangements. The Atlanta TDM Framework should investigate adding additional incentives to encourage rideshare formation.

APPENDIX A – FINAL SURVEY

Demo = aplacedm
Survey = aplacrec

Atlanta Survey - #855
Recent Applicant Rideshare Database Placement Survey - Final

Hello, may I speak to _____? (NAME FROM THE SCREEN)

My name is _____ calling from CIC Research on behalf of 1-87-RIDEFIND. Your name was selected at random from a list of people who have requested commute information or assistance from 1-87-RIDEFIND, or from the (Framework partner). Today we're conducting a short survey to learn about your experience with that information. The survey takes less than 10 minutes to complete. Is now a good time?

1 Do you recall receiving information on ridesharing, such as a list of people you could call as potential carpool partners or information about the Guaranteed Ride Home program? You could have received this information through a letter, an email, or on-line.

1 Yes
2 No (TERMINATE)
3 Don't Know (TERMINATE)

CURRENT COMMUTE

2 I'd like to begin by asking a few questions about your current commute. If you work more than one job, please give us information on your commute to your primary job. First, in a typical week, how many days are you assigned to work?

____ days

Not currently working (TERMINATE)

3 And how many miles do you usually travel from home to work ONE WAY? (IF DIFFERENT ROUTES OR DIFFERENT MODES say: Well, what would you say is your average ONE WAY commuting distance?)

_____ one way miles

4 Next, how do you travel to work? Thinking about LAST WEEK, how did you get to work each day. Let's start with Monday?… How about Tuesday? … Wednesday?… Thursday?… Friday? (IF ALL DAYS IN Q2 ARE ACCOUNTED FOR BY MODES 1-9 IN Q4, CATI WILL AUTOFILL SAT & SUN WITH CODE 10 AND SKIP TO Q4a; OTHERWISE CONTINUE)

Are you regularly assigned to work on Saturday or Sunday~~?~~ (IF YES, ASK) "and how did you travel to work on these days? (AND RECORD ANSWER AS GIVEN.)

(IF RESPONDENT IS NOT ASSIGNED TO WORK ON SATURDAY OR SUNDAY, RECORD "DID NOT WORK")

(IF RESPONDENT MENTIONS TWO MODES FOR ANY DAY, SAY, which type of transportation did you use for the longest distance portion of your trip?).

(IF RESPONDENT MENTIONS "TELEWORK / TELECOMMUTE" OR "COMPRESSED WORK SCHEDULE DAY OFF" FOR SATURDAY OR SUNDAY, SAY, is this a regularly assigned work day for you? IF "YES," RECORD ANSWER AS GIVEN. IF "NO," RECORD "DID NOT WORK."

	Mode Used Monday – Sunday						
Mode/days used last week	M	Tu	W	Th	F	Sa	Su
1 drive alone in your car or motorcycle	M	Tu	W	Th	F	Sa	Su
2 carpool, including w/family member 16 or older ASK Q5a, 5c-5d)	M	Tu	W	Th	F	Sa	Su
3 vanpool with co-workers or others who work nearby (ASK Q5b-5d)	M	Tu	W	Th	F	Sa	Su
4 ride a bus or shuttle (ASK 5c-5d)	M	Tu	W	Th	F	Sa	Su
5 ride a train or subway (Ask 5c-5d)	M	Tu	W	Th	F	Sa	Su
6 walk	M	Tu	W	Th	F	Sa	Su
7 bicycle	M	Tu	W	Th	F	Sa	Su
8 telework / telecommute	M	Tu	W	Th	F	Sa	Su
9 Compressed work schedule day off	M	Tu	W	Th	F	Sa	Su
10 Did not work – regular day off, sick, on vacation, other day off	M	Tu	W	Th	F	Sa	Su

4a So last week you (SHOW ANSWERS FROM Q4). Was last week a typical commuting week for you? (IF RESPONDENT DOES NOT VERIFY ANSWERS FROM Q4, SNAP BACK AND CHANGE) (IF ~~YES~~ WEEK IS TYPICAL, SKIP TO Q5a, IF NO, CONTINUE)

4b Thinking about a TYPICAL WORK WEEK, how many days would you usually …? (WHEN NUMBER OF DAYS REPORTED IN Q4b = NUMBER OF DAYS REPORTED IN Q2, DISCONTINUE LISTING MODES (REMAINING DAYS WILL BE RECORDED AS "DID NOT WORK")

	Use mode - number of days							
Mode/days typically used per week	0	1	2	3	4	5	6	7
1 drive alone in your car or motorcycle	0	1	2	3	4	5	6	7
2 carpool, including w/family member 16 or older (ASK Q5a, 5c-5d)	0	1	2	3	4	5	6	7
3 vanpool with co-workers or others who work nearby (ASK Q5b-5d)	0	1	2	3	4	5	6	7
4 ride a bus or shuttle (ASK 5c-5d)	0	1	2	3	4	5	6	7
5 ride a train or subway (ASK 5c-5d)	0	1	2	3	4	5	6	7
6 walk	0	1	2	3	4	5	6	7
7 bicycle	0	1	2	3	4	5	6	7
8 telework / telecommute	0	1	2	3	4	5	6	7
9. have a compressed work schedule day off	0	1	2	3	4	5	6	7
10 Did not work – regular day off	0	1	2	3	4	5	6	7

5a Including yourself, how many people usually ride in your carpool? _____ (2 - 6 people)

5b Including yourself, how many people usually ride in your vanpool? _____ (7- 15 people)

5c How do you get from home to where you meet your carpool, vanpool, bus, or train (FROM Q4 or 4b)? (IF MORE THAN ONE ANSWER IN Q4/Q4b, SELECT MODE USED MOST FREQUENTLY)

1 picked up at home by car/van pool or driver (SKIP TO Q6)
2 drive alone to driver's home
3 Drive alone to passenger's home/driver of carpool/vanpool
4 drive to a central location, like park & ride
5 another car/van pool, including dropped off by HH members
6 bicycle/walk
7 bus/transit
8 other (SPECIFY)_____

5d How many miles is it one-way from your home to where you meet your carpool, vanpool, bus, or train (FROM Q4/4b, same mode as used in Q5c)?

_____ miles (allow fractions of miles)

6 Now I have a few questions about your work week. Do you currently work full time or part time?

1 Full time (CONTINUE)
2 Part time (SKIP TO Q9)
3 Other (Specify _____) (SKIP TO Q9)

7 Some employers have non-standard or flexible work hours or days, for example working four ten-hour days per week, with one week day off each week or flexible start time. In a typical week, do you use nonstandard or flexible hours?

1 Yes (CONTINUE)
2 No (SKIP TO Q9)
3 Don't Know (VOLUNTEERED) (SKIP TO Q9)

8 What type of schedule do you work, is it . . . ?

1 4/40 - that is, forty hours in four days with one week day off each week
2 9/80 - that is, eighty hours in a nine day period with one week day off every two weeks
3 3/36 - that is, thirty six hours in a three day period with two week days off each week
4 Flex-hour (core hours with flexible start & stop)
5 Other (Specify _____)

COMMUTE CHANGES

9 Next I'd like to ask about the information or assistance you received from 1-87-RIDEFIND, or _____ (Framework partner), or your employer and changes in your commute since the time you received the information or assistance. First, did you receive a list with names of one or more people you could contact to try to arrange a carpool or vanpool, even if you did not form a carpool or vanpool with any of them?

1 Yes (CONTINUE)
2 Yes, a letter, but no names (SKIP TO Q10a)
3 No (SKIP TO Q10a)
4 Don't remember/don't Know (SKIP TO Q10a)

9a Did you try to contact any of the people named on the list?

1 Yes (CONTINUE)
2 No (SKIP TO Q9e)
3 Don't remember/don't know (SKIP TO Q10a)

9b. Were you able to reach one or more of the people named?

1 Yes (SKIP TO Q9d)
2 No (CONTINUE)
3 Don't remember/don't know (SKIP TO Q10a)

9c. What difficulties did you encounter in reaching the people on the list? (DO NOT READ)

1 Phone number was not correct or had been disconnected
2 Commuter could be reached at that number only for emergencies (common number for many employees)
3 Commuter was no longer at that job
4 Commuter had moved to a different residential area
5 Left message and didn't receive a call back
6 Email address was not correct
7 Other _____

SKIP TO Q10a

9d. Were the people you reached interested in forming a carpool or vanpool, if your travel destination and schedule were compatible?

1 Yes (SKIP TO Q10a)
2 No (SKIP TO Q10a)
3 Schedule or destination were not compatible (SKIP TO Q10a)
4 Don't remember/don't know (SKIP TO Q10a)

SKIP TO Q10a

9e Why did you not try to contact any of the people? (DO NOT READ)

1 Haven't gotten around to it
2 Decided I didn't want to carpool
3 Moved to a new residence
4 Changed jobs
5 Addresses weren't close to my home/work
6 Found other rideshare option/already ridesharing
7 Schedule/work hours not compatible
8 Child care issues/take kids to school/daycare
9 Need or want travel/work hours flexibility
10 Other _____

Now I want to ask you about changes you might have made in your commute since you received commute information or assistance. Did you make any of the following changes, even if the change was only temporary?

10a Did you join or create a new carpool, even if only temporarily?

1 Yes (SKIP TO Q11)
2 No (CONTINUE)

10b Did you add another person to an existing carpool?

1 Yes (SKIP TO Q10f)
2 No (CONTINUE)

10c Did you join or create a new vanpool?

1 Yes (SKIP TO Q11)
2 No (CONTINUE)

10d Did you add another person to an existing vanpool?

1 Yes (SKIP TO Q10f)
2 No (CONTINUE)

10e Did you start using transit (bus, train, or subway) bike, walk, or telework/telecommute for your commute, even if only temporarily?

1 Yes (SKIP TO Q12)
2 No (CONTINUE)

10f Did you increase the number of days per week that you carpool, vanpool, use transit (bus, train, or subway) or bike, walk or telework/telecommute to work?

1 Yes (SKIP TO Q12)
2 No (CONTINUE)

(IF Q10b OR Q10d = YES, SKIP TO Q11)

10g Did you make any other type of commute change or try any other type of transportation, other than driving alone, even if only temporarily?
1 Yes (ASK Q10h)
2 No (IF ANY 10a-d = YES, SKIP TO Q11; IF ANY Q10e-f = YES, SKIP TO Q12; OTHERWISE, SKIP TO Q20)

10h What was that change? (DO NOT READ)
1 Tried carpooling (ASK Q11)
2 Tried vanpooling (ASK Q11)
3 Tried transit (bus, train, or subway) (SKIP TO Q12)
4 Tried walking, started walking to work (SKIP TO Q12)
5 Tried bicycling, started bicycling to work (SKIP TO Q12)
6 Tried telecommuting/started telecommuting (SKIP TO Q12)
7 Changed carpool, vanpool/transit pick-up or meeting location or how you got to the location (SKIP TO Q12)
8 Tried driving alone, started driving alone (SKIP TO Q20)
9 other (specify)_____ (SKIP TO Q12)

11 Were the people in this [carpool/vanpool] named on the list you received?
1 Yes
2 No
3 Don't know/don't remember (VOLUNTEERED)

12 Was this change temporary or have you continued the change?
1 Continued (IF Q10b = YES AND Q10f = NO, ASK Q14, THEN SKIP TO Q16a & AUTOFILL Q15) IF Q110d = YES AND Q10f = NO, SKIP TO Q14, THEN SKIP TO Q16b & AUTOFILL Q15. IF Q10g = YES AND Q10f = NO, SKIP TO Q14, THEN SKIP TO Q16c & AUTOFILL Q15)
2 Temporary (CONTINUE)

(IF Q10b=YES AND Q10f =NO, ASK Q17a – Q17c, THEN SKIP TO Q19a AND AUTOFILL Q18.
IF Q10d=YES AND Q10f =NO, SKIP TO Q17a – Q17c, THEN SKIP TO Q19b AND AUTOFILL Q18.
IF Q10g=YES AND Q10f =NO, SKIP TO Q17a – Q17c, THEN SKIP TO Q19c AND AUTOFILL Q18.)

COMMUTE MODE BEFORE CONTINUED CHANGE

14 Now I'd like to ask you about your commute BEFORE you made this change. During that time, how many days were you assigned to work in a typical week?
____ days ☐ Did not work then (SKIP TO Q20)

15 And before you made this change, how did you travel to work? During a TYPICAL WEEK, how many days did you … (WHEN NUMBER OF DAYS REPORTED IN Q15 = NUMBER OF DAYS REPORTED IN Q14, DISCONTINUE LISTING MODES) (REMAINING DAYS WILL BE RECORDED AS "DID NOT WORK."

	Use mode – number of days							
Mode/days typically used per week	0	1	2	3	4	5	6	7
1 drive alone in your car or motorcycle	0	1	2	3	4	5	6	7
2 carpool, , including w/family member 16 or older (ASK Q16a, 16c)	0	1	2	3	4	5	6	7
3 vanpool with co-workers or others who work nearby (ASK Q16b-c)	0	1	2	3	4	5	6	7
4 ride a bus or shuttle (ASK Q16c)	0	1	2	3	4	5	6	7
5 ride a train or subway (ASK Q16c)	0	1	2	3	4	5	6	7
6 walk (ASK Q16c)	0	1	2	3	4	5	6	7

7 bicycle (ASK Q16c)	0	1	2	3	4	5	6	7
8 telework / telecommute (ASK Q16c)	0	1	2	3	4	5	6	7
9. have a compressed work schedule day off	0	1	2	3	4	5	6	7
10 not work – regular day off	0	1	2	3	4	5	6	7

16a Including yourself, how many people were in your old carpool? _____ (2 - 6 people)

16b Including youself, how many people were in your old vanpool? _____ (5 - 15 people)

16c Was your decision to (Mode from Q10a – Q10e or Q10h) influenced by any information, service, or benefit provided by 1-87-RIDEFIND, by the (Framework partner), by your employer, or by another organization that helps with ridesharing?

1 Yes (CONTINUE)
2 No (SKIP TO Q20)
3 Don't remember/refused (SKIP TO Q20)

16d. What was the information, service, or benefit? (DO NOT READ)

1 Matchlist
2 Guaranteed Ride Home
3 Employer information
4 Transit pass discount (MARTA)
5 Transit route/schedule information
6 Park & Ride lot map
7 Vanpooling assistance
8 Employer incentives/programs
9 Compressed work week/telecommute
10 Parking fees
11 TMA assistance
12 Clean Air Campaign assistance
13 Rideshare ads
14 Other _____
15 Don't know, refused (SKIP TO Q20)

16e. Who provided the information or assistance to you? (DO NOT READ)

1 1-87-RIDEFIND
2 Commute Connections
3 Employer
4 Clean Air Campaign
5 TMA (specify)_____
6 Other _____
7 Don't know/don't remember

(NOW SKIP TO Q20)

COMMUTE MODE DURING TEMPORARY CHANGE

17aAbout how long did this temporary change last? (REPORT DURATION IN THE APPROPRIATE CATEGORY, BASED ON RESPONDENT'S UNPROMPTED ANSWER) (LESS THAN 1 WEEK = 1 WEEK)

1 ____ weeks
2 ____ months
3 ____ years

17b What were the reasons you did not continue? (DO NOT READ)

1 Too inconvenient
2 Cost too much
3 Took too much time
4 Safety concerns
5 Job changes - job, work site, or work schedule change
6 Need vehicle during or after work
7 Bus or rail schedule or route change
8 Vehicle became unavailable/unreliable
9 Moved home location
10 Didn't like pool partners
11 New/changes in employer program
12 Circumstantial (e.g., car became available or unavailable)
13 Other (specify) _____

17c Now I'd like to ask you about your commute during the time that you made this temporary change. During that time, how many days were you assigned towork in a TYPICAL WEEK?

____ days Did not work then (SKIP TO Q20)

18 And how did you travel to work at that time? During a TYPICAL WEEK, how many days did you … (WHEN NUMBER OF DAYS REPORTED IN Q18 = NUMBER OF DAYS REPORTED IN Q17c, DISCONTINUE LISTING MODES) (REMAINING DAYS WILL BE RECORDED AS "DID NOT WORK."

	Use mode – number of days							
Mode/days typically used per week	0	1	2	3	4	5	6	7
1 drive alone in your car or motorcycle	0	1	2	3	4	5	6	7
2 carpool, , including w/family member 16 or older (ASK Q19a, 19c)	0	1	2	3	4	5	6	7
3 vanpool with co-workers or others who work nearby (ASK Q19b-c)	0	1	2	3	4	5	6	7
4 ride a bus or shuttle (ASK Q19c)	0	1	2	3	4	5	6	7
5 ride a train or subway (ASK Q19c)	0	1	2	3	4	5	6	7
6 walk (ASK Q19c)	0	1	2	3	4	5	6	7
7 bicycle (ASK Q19c)	0	1	2	3	4	5	6	7
8 telework / telecommute (ASK Q19c)	0	1	2	3	4	5	6	7
9. have a compressed work schedule day off	0	1	2	3	4	5	6	7
10 not work – regular day off	0	1	2	3	4	5	6	7
11 other (specify _____)	0	1	2	3	4	5	6	7

19a Including youself, how many people were in your old carpool? _____ (2 - 6 people)

19b Including youself, how many people were in your old vanpool? _____ (5 -15 people)

19c Was your decision to (MODE from Q10a – Q10e or Q10h) influenced by any information, service, or benefit provided by 1-87-RIDEFIND, by the _____ (Framework partner), by your employer, or by another organization that helps with ridesharing?
1 Yes (CONTINUE)
2 No (SKIP TO Q20)
3 Don't remember/refused (SKIP TO Q20)

19d. What was the information, service or benefit? (DO NOT READ)
1 Matchlist
2 Guaranteed Ride Home
3 Employer information
4 Transit pass discount (MARTA)
5 Transit route/schedule information
6 Park & Ride lot map
7 Vanpooling assistance
8 Employer incentives/programs
9 Compressed work week/telecommute
10 Parking fees
11 TMA assistance
12 Clean Air Campaign assistance
13 Rideshare ads
14 Other _____
15 Don't know, refused (SKIP TO Q20)

19e. Who provided the information or assistance to you? (DO NOT READ)
1 1-87-RIDEFIND
2 Commute Connections
3 Employer
4 Clean Air Campaign
5 TMA (specify)_____
6 Other _____
7 Don't know/don't remember

DEMOGRAPHICS

20 Finally, I have just a few more questions for background information only. Do you have a car available to you on a regular basis for your travel to work?
1 Yes
2 No
3 Available sometimes
4 Not sure (VOLUNTEERED)
5 Refused (VOLUNTEERED)

21 Do you work for government, private industry, or a non-profit group or organization?
1 Federal government
2 State or local government
3 Private industry
4 Non-profit organization
5 Other, not sure (VOLUNTEERED) (Specify _____)
6 Refused (VOLUNTEERED)

22 About how many employees work at your worksite? Is it . . . (READ CHOICES)
1 1 – 25 employees
2 26-50
3 51-100
4 101-250
5 251-999
6 1,000 +
7 Don't know (VOLUNTEERED)
8 Refused (VOLUNTEERED)

23 In which age group are you?
1 18 – 24
2 25 – 29
3 30 – 34
4 35 – 39
5 40 – 44
6 45 – 49
7 50 – 54
8 55 – 59
9 60 - 64
10 65 – 69
11 70 – 74
12 75 and older
13 Refused (VOLUNTEERED)

24 Which of the following best describes your ethnic background. Is it . . . (READ CHOICES)
1 African American/Black American
2 American Indian/Native American
3 Asian American/Pacific Islander
4 Caucasion/White
5 Hispanic American/Latino
6 Other (VOLUNTEERED) (specify _____)
7 Refused (VOLUNTEERED)

25 And finally, which category includes your average household yearly income?
1 Under $10,000
2 $10,000 but less than $20,000
2 $20,000 but less than $30,000
3 $30,000 but less than $40,000
4 $40,000 but less than $50,000
5 $50,000 but less than $60,000
6 $60,000 but less than $70,000
7 $70,000 but less than $80,000
8 $80,000 but less than $90,000
9 $90,000 but less than $100,000
10 $100,000 or more
11 Refused (VOLUNTEERED)

Thank you very much for your time and cooperation!

(DO NOT READ:)
26 Was person interviewed a male or female ?
1 Male
2 Female

demo = aplacpdm
Survey = aplacpre

Atlanta Survey - #855
Previous Applicant Rideshare Database Placement Survey - Final

Hello, may I speak to _____? (NAME FROM THE SCREEN)

My name is _____ calling from CIC Research on behalf of 1-87-RIDEFIND. Your name was selected at random from a list of people who have requested commute information or assistance from 1-87-RIDEFIND, or from the _____ (Framework partner). We're conducting this survey to learn about how people travel to work. The survey takes less than 5 minutes to complete. Is now a good time?

1 Do you recall receiving information on ridesharing, such as a list of people you could call as potential carpool partners or information about the Guaranteed Ride Home program? You could have received this information through a letter, an email, or on-line.
   1 Yes
   2 No (THANK & TERMINATE)
   3 Don't Know (THANK & TERMINATE)

CURRENT COMMUTE

2 I'd like to begin by asking a few questions about your current commute. If you work more than one job, please give us information on your commute to your primary job. First, in a typical week, how many days are you assigned to work?
   ____ days

   Not currently working (THANK & TERMINATE)

3 Next, how do you travel to work? Thinking about LAST WEEK, how did you get to work each day. Let's start with Monday? How about Tuesday? … Wednesday? …Thursday? Friday? (IF ALL DAYS IN Q2 ARE ACCOUNTED FOR BY MODES 1-9 IN Q3, CATI WILL AUTOFILL SAT & SUN WITH CODE 10 AND SKIP TO Q3a. OTHERWISE CONTINUE)

And are you regularly assigned to work on Saturday or Sunday? (IF YES, ASK "and how did you travel to work on these days last week? AND RECORD ANSWER AS GIVEN.)

(IF RESPONDENT IS NOT ASSIGNED TO WORK ON SATURDAY OR SUNDAY, RECORD "DID NOT WORK")

(IF RESPONDENT MENTIONS TWO MODES FOR ANY DAY, SAY, which type of transportation did you use for the longest distance portion of your trip?).

(IF RESPONDENT MENTIONS "TELEWORK / TELECOMMUTE" OR "COMPRESSED WORK SCHEDULE DAY OFF" FOR SATURDAY OR SUNDAY, SAY, is this a regularly assigned work day for you? IF "YES," RECORD ANSWER AS GIVEN. IF "NO," RECORD "DID NOT WORK."

	Mode Used Monday – Sunday						
Mode/days used last week	M	Tu	W	Th	F	Sa	Su
1 drive alone in your car or motorcycle	M	Tu	W	Th	F	Sa	Su
2 carpool, including w/family member 16 or older	M	Tu	W	Th	F	Sa	Su
3 vanpool with co-workers or others who work nearby	M	Tu	W	Th	F	Sa	Su
4 ride a bus or shuttle	M	Tu	W	Th	F	Sa	Su
5 ride a train or subway	M	Tu	W	Th	F	Sa	Su
6 walk	M	Tu	W	Th	F	Sa	Su
7 bicycle	M	Tu	W	Th	F	Sa	Su
8 telework / telecommute	M	Tu	W	Th	F	Sa	Su
9 Compressed work schedule day off	M	Tu	W	Th	F	Sa	Su
10 Did not work – regular day off, sick, on vacation, other day off	M	Tu	W	Th	F	Sa	Su

4a So last week you . . . (SHOW ANSWERS FROM Q4). Was last week a typical commuting week for you? (IF NO, CONTINUE . IF YES, AND Q2 = NUMBER OF DAYS IN Q3 WITH MODES 1-9, SKIP TO Q5a. IF Q2 NE NUMBER OF DAYS IN Q3 WITH MODES 1-9, DISPLAY BOTH ANSWERS AND VERIFY WITH RESPONDENT. THEN SNAP BACK OR CONTINUE AS APPROPRIATE)

4b Thinking about a TYPICAL WORK WEEK, how many days would you usually …? (WHEN NUMBER OF DAYS REPORTED IN Q4b = NUMBER OF DAYS REPORTED IN Q2, DISCONTINUE LISTING MODES (REMAINING DAYS WILL BE RECORDED AS "DID NOT WORK")

	Use mode - number of days							
Mode/days typically used per week	0	1	2	3	4	5	6	7
1 drive alone in your car or motorcycle	0	1	2	3	4	5	6	7
2 carpool, including w/family member 16 or older	0	1	2	3	4	5	6	7
3 vanpool with co-workers or others who work nearby	0	1	2	3	4	5	6	7
4 ride a bus or shuttle	0	1	2	3	4	5	6	7
5 ride a train or subway	0	1	2	3	4	5	6	7
6 walk	0	1	2	3	4	5	6	7
7 bicycle	0	1	2	3	4	5	6	7
8 telework / telecommute	0	1	2	3	4	5	6	7
9. have a compressed work schedule day off	0	1	2	3	4	5	6	7
10 Did not work – regular day off	0	1	2	3	4	5	6	7

5 Now I have a few questions about your work week. Do you currently work full time or part time?

1 Full time (CONTINUE)
2 Part time (SKIP TO Q8)
3 Other (Specify _____) (SKIP TO Q8)

6 Some employers have non-standard or flexible work hours or days, for example working four ten-hour days per week, with one week day off each week or flexible start time. In a typical week, do you use nonstandard or flexible hours?
1 Yes (CONTINUE)
2 No (SKIP TO Q8)
3 Don't Know (VOLUNTEERED) (SKIP TO Q8)

7 What type of schedule do you work, is it . . . ?
1 4/40 - that is, forty hours in four days with one week day off each week
2 9/80 - that is, eighty hours in a nine day period with one week day off every two weeks
3 3/36 - that is, thirty six hours in a three day period with two week days off each week
4 Flex-hour (core hours with flexible start & stop)
5 Other (Specify _____)

IF Q3/Q4b, RESPONSE 2, 3, 4, 5, 6, 7, 8 or 9 NE 0, CONTINUE, OTHERWISE, SKIP TO Q9

8. How long have you been [carpooling, vanpooling, riding the bus, riding the train, walking, bicycling: **FROM Q3 or Q4b)?**
(IF RESPONDENT REPORTS NUMBER OF YEARS, CONVERT TO MONTHS, IF RESPONDENT REPORTS LESS THAN ONE MONTH, RECORD "1 MONTH")

(IF RESPONDENT SAYS "DON'T KNOW," PROMPT) "Do you remember about what year you started? (carpooling, vanpooling, riding the bus, riding the train, walking, bicycling: **FROM Q3 or Q4b)? CONVERT YEARS TO MONTHS**

(IF MORE THAN ONE ALT MODE WAS NAMED IN Q3 or Q4b, REPEAT Q8 FOR EACH ALT MODE) And how long have you been (carpooling, vanpooling, riding the bus, riding the train, walking, bicycling: **FROM Q3 or Q4b)?**

IF Q3, RESPONSE 8 GT 0 OR Q4b, RESPONSE 8 GT 0, ASK
How long have you been telecommuting or teleworking?

IF Q3, RESPONSE 9 GT 0 OR Q4b, RESPONSE 9 GT 0, OR Q7 = 1, 2, OR 3, ASK
How long have you been using a compressed work schedule?

REPORT DURATION OF MODE USE BELOW FOR ALL ALT MODES CURRENTLY USED

1	carpooled	_____ months
2	vanpooled	_____ months
3	rode bus	_____ months
4	rode train	_____ months
5	walked	_____ months
6	bicycled	_____ months
7	teleworking	_____ months
8	using a CWS	_____ months

(NOW SKIP TO Q12)
(DRIVE ALONE ONLY)

9. You said that you currently drive alone every day. Before you started driving alone, did you regularly travel to work by any of the following types of transportation, one or more days per week?

1 carpool
2 vanpool
3 bus
4 train
5 walking
6 bicycling
9 did not use any alternative mode (DO NOT READ)

9a Before you started driving alone to work, did you telecommute or telework one or more days per month?
1 yes
2 no
3 don't know

9b Before you started driving alone to work, did you work a compressed work schedule?
1 yes
2 no
3 don't know

(IF Q9 = NO ALTERNATE MODE AND Q9a = NO OR DK AND Q9b = NO OR DK, SKIP TO Q12)

10 How long did you [carpool, vanpool, ride the bus, ride the train, walk, bicycle: **FROM Q9)?**
(IF RESPONDENT REPORTS NUMBER OF YEARS, CONVERT TO MONTHS, IF RESPONDENT REPORTS LESS THAN ONE MONTH, RECORD "1 MONTH")

(IF MORE THAN ONE ALT MODE WAS NAMED IN Q9, REPEAT Q10 FOR EACH ALT MODE)
And how long have you been (carpooling, vanpooling, riding the bus, riding the train, walking, bicycling: **FROM Q9)?**

IF Q9a = yes, ASK
How long did you telecommute or telework?

IF Q9b = yes, ASK
How long did you work a compressed work schedule?

REPORT DURATION OF MODE USE BELOW FOR ALL ALT MODES PREVIOUSLY USED

1 carpooled _____ months
2 vanpooled _____ months
3 rode bus _____ months
4 rode train _____ months
5 walked _____ months
6 bicycled _____ months
7 teleworked _____ months
8 used a CWS _____ months

11 What were the reasons you did not continue? (DO NOT READ)

1 Too inconvenient
2 Cost too much
3 Took too much time
4 Safety concerns
5 Job changes - job, work site, or work schedule change
6 Need vehicle during or after work
7 Bus or rail schedule or route change
8 Vehicle became unavailable/unreliable
9 Moved home location
10 Didn't like pool partners
11 New/changes in employer program
12 Circumstantial (e.g., car became available or unavailable)
13 Other (specify) _____

DEMOGRAPHICS

12 Finally, I have just a few more questions for background information only. Do you have a car available to you on a regular basis for your travel to work?

1 Yes
2 No
3 Available sometimes
4 Not sure (VOLUNTEERED)
5 Refused (VOLUNTEERED)

13 Do you work for . . . ? (READ CHOICES)

1 A Federal government
2 A State or local government
3 A Private industry
4 A Non-profit organization
5 Other, not sure (VOLUNTEERED) (Specify _____)
6 Refused (VOLUNTEERED)

14 About how many employees work at your worksite? Is it . . . (READ CHOICES)

1 1 – 25 employees
2 26-50
3 51-100
4 101-250
5 251-999
6 1,000 +
7 Don't know (VOLUNTEERED)
8 Refused (VOLUNTEERED)

15 In which age group are you?

1 18 – 24
2 25 – 29
3 30 – 34
4 35 – 39
5 40 – 44
6 45 – 49
7 50 – 54
8 55 – 59
9 60 - 64
10 65 – 69
11 70 – 74
12 75 and older
13 Refused (VOLUNTEERED)

16 Which of the following best describes your ethnic background. Is it . . . (READ CHOICES)

1 African American/Black American
2 American Indian/Native American
3 Asian American/Pacific Islander
4 Caucasion/White
5 Hispanic American/Latino
6 Mixed (VOLUNTEERED)
7 Other (VOLUNTEERED) (specify _____)
8 Refused (VOLUNTEERED)

17 And finally, which category includes your average household yearly income?

1 Under $10,000
2 $10,000 but less than $20,000
2 $20,000 but less than $30,000
3 $30,000 but less than $40,000

APPENDIX B – TRAVEL AND EMISSION REDUCTION CALCULATIONS

	CP	VP	VP w/o double counting	TR	Total	Total w/o double counting
Placements						
New	3,150	956	313	2,222	6,328	5,685
Retained	2,109	394	129	2,362	4,865	4,600
Total	5,259	1,350	442	4,584	11,193	10,285
VT Reduced						
New	(1,071)	(803)	(263)	(1,200)	(3,074)	(2,534)
Retained	(1,730)	(555)	(181)	(2,551)	(4,836)	(4,462)
Total	(2,800)	(1,358)	(445)	(3,751)	(7,910)	(6,996)
VMT Reduced						
New	(24,631)	(23,855)	(7,813)	(27,354)	(75,840)	(59,798)
Retained	(45,315)	(16,876)	(5,518)	(66,334)	(128,525)	(117,166)
Total	(69,946)	(40,731)	(13,331)	(93,688)	(204,365)	(176,965)
Emissions Reduced						
NOx	(0.0808)	(0.0386)	(0.0126)	(0.1097)	(0.2291)	(0.2032)
VOC	(0.0936)	(0.0447)	(0.0146)	(0.1271)	(0.2654)	(0.2353)
Total	(0.1744)	(0.0833)	(0.0272)	(0.2369)	(0.4945)	(0.4385)

Regional Ridematching and GRH Database - Carpool Calculation

Active DB Registrants	28123	
Carpool Placement Rate		
New Placement Rate	11.2%	
Retained Placement Rate	7.5%	
Estimate number of new placements	3150	= DB registrants x New Placement Rate
Estimate number of retained placements	2109	= DB registrants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(0.34)	= daily trips reduced / total new placements
Retained VTR Factor	(0.82)	= daily trips reduced / total retained placements

Regional Ridematching and GRH Database - Carpool Calculation Cont.

Carpool VT Reduced (daily)
(placements x VTR factor)

(new)	(1071)
(retained)	(1730)

One-way Trip distance (mile) - New	23
One-way Trip distance (mile) - Retained	26

Carpool VMT Reduced (daily)

(new)	(24631)
(retained)	(45315)

Adjust VT/VMT for SOV Access

Percent SOV Access - New	11%
Adjusted VT reduced - New	(956)
Access distance (miles) - New	9.60
Adjusted VMT reduced - New	(23531)
Percent SOV Access - Retained	43%
Adjusted VT reduced - Retained	(991)
Access distance (miles) - Retained	6.90
Adjusted VMT reduced - Retained	(40219)

Regional Ridematching and GRH Database - Carpool Calculation Cont.

Emissions Reduced	
Daily	
NOx Reduced (gm) - New Users	(27061)
VOC Reduced (gm) - New Users	(31344)
NOx Reduced (gm) - Retained Users	(46252)
VOC Reduced (gm) - Retained Users	(53571)
Yearly	
NOx Reduced - New Users	(6765219)
VOC Reduced - New Users	(7835888)
NOx Reduced - Retained Users	(11562898)
VOC Reduced - Retained Users	(13392852)
KG (Daily)	
NOx Reduced - New Users	(27.06)
VOC Reduced - New Users	(31.34)
NOx Reduced - Retained Users	(46.25)
VOC Reduced - Retained Users	(53.57)
Tons (Daily)	
NOx Reduced - New Users	(0.0298)
VOC Reduced - New Users	(0.0346)
NOx Reduced - Retained Users	(0.0510)
VOC Reduced - Retained Users	(0.0591)
Total Emissions Reduced (Tons/Day)	
NOx Reduced - (New + Retained Users)	(0.0808)
VOC Reduced - (New + Retained Users)	(0.0936)

Regional Ridematching and GRH Database - Vanpool Calculation

Active DB Registrants	28,123	
Vanpool Placement Rate		
New Placement Rate	3.4%	
Retained Placement Rate	1.4%	
Estimate number of new placements	956	= DB registrants x New Placement Rate
Estimate number of retained placements	394	= DB registrants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(0.84)	= daily trips reduced / total new placements
Retained VTR Factor	(1.41)	= daily trips reduced / total retained placements

Regional Ridematching and GRH Database - Vanpool Calculation Cont.

Vanpool VT Reduced (daily)	
(placements x VTR factor)	
(new)	(803)
(retained)	(555)
One-way Trip distance (mile) - New	30
One-way Trip distance (mile) - Retained	30
Vanpool VMT Reduced (daily)	
(new)	(23,855)
(retained)	(16,876)
Adjust VT/VMT for SOV Access	
Percent SOV Access - New	58.8%
Adjusted VT reduced - New	(331)
Access distance (miles) - New	14.4
Adjusted VMT reduced - New	(17,054)
Percent SOV Access - Retained	100%
Adjusted VT reduced - Retained	-
Access distance (miles) - Retained	6.3
Adjusted VMT reduced - Retained	(13,379)

Regional Ridematching and GRH Database - Vanpool Calculation Cont.

Emissions Reduced	
Daily	
NOx Reduced (gm) - New Users	(19,612)
VOC Reduced (gm) - New Users	(22,716)
NOx Reduced (gm) - Retained Users	(15,386)
VOC Reduced (gm) - Retained Users	(17,821)
Yearly	
NOx Reduced - New Users	(4,903,035)
VOC Reduced - New Users	(5,678,993)
NOx Reduced - Retained Users	(3,846,482)
VOC Reduced - Retained Users	(4,455,229)
KG (Daily)	
NOx Reduced - New Users	(19.61)
VOC Reduced - New Users	(22.72)
NOx Reduced - Retained Users	(15.39)
VOC Reduced - Retained Users	(17.82)
Tons (Daily)	
NOx Reduced - New Users	(0.0216)
VOC Reduced - New Users	(0.0250)
NOx Reduced - Retained Users	(0.0170)
VOC Reduced - Retained Users	(0.0196)
Total Emissions Reduced (Tons/Day)	
NOx Reduced - (New + Retained Users)	(0.0386)
VOC Reduced - (New + Retained Users)	(0.0447)

Regional Ridematching and GRH Database - Transit Calculation

Active DB Registrants	28,123	
Transit Placement Rate		
New placement rate	7.9%	
Retained placement rate	8.4%	
Estimate number of new placements	2222	= DB registrants x New Placement Rate
Estimate number of retained placements	2,362	= DB registrants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(0.54)	= daily trips reduced / total new placements
Retained VTR Factor	(1.08)	= daily trips reduced / total retained placements

Regional Ridematching and GRH Database - Transit Calculation Cont.

Transit VT Reduced (daily)
(placements x VTR factor)

	(new)	(1,200)
	(retained)	(2,551)
One-way Trip distance (mile) - New		23
One-way Trip distance (mile) - Retained		26
Transit VMT reduced (daily)		
	(new)	(27,354)
	(retained)	(66,334)

Adjust VT/VMT for SOV access

Percent SOV Access - New	19%
Adjusted VT reduced - New	972
Access distance (miles) - New	6.1
Adjusted VMT reduced - New	(25,963)
Percent SOV Access - Retained	33%
Adjusted VT reduced - Retained	(1,702)
Access distance (miles) - Retained	6.8
Adjusted VMT reduced - Retained	(60,609)

Regional Ridematching and GRH Database - Transit Calculation Cont.

Emissions Reduced	
Daily	
NOx reduced (gm) - new users	(29,858)
VOC reduced (gm) - new users	(34,583)
NOx reduced (gm) - retained users	(69,700)
VOC reduced (gm) - retained users	(80,731)
Yearly	
NOx reduced - new users	(7,464,448)
VOC reduced - new users	(8,645,778)
NOx reduced - retained users	(17,425,123)
VOC reduced - retained users	(20,182,838)
KG (Daily)	
NOx reduced - new users	(29.86)
VOC reduced - new users	(34.58)
NOx reduced - retained users	(69.70)
VOC reduced - retained users	(80.73)
Tons (Daily)	
NOx reduced - new users	(0.0329)
VOC reduced - new users	(0.0381)
NOx reduced - retained users	(0.0768)
VOC reduced - retained users	(0.0890)
Total Emissions Reduced (Tons/Day)	
NOx reduced - (new + retained users)	(0.1097)
VOC reduced - (new + retained users)	(0.1271)

APPENDIX B-5 – OCTOBER 2002 BUSINESS LEADER SURVEY FINAL REPORT

EVALUATION OF THE EFFECTIVENESS OF PROGRAMS CONTAINED IN THE "FRAMEWORK FOR COOPERATION TO REDUCE TRAFFIC CONGESTION AND IMPROVE AIR QUALITY"

PHASE THREE

OCTOBER 2002 BUSINESS LEADER SURVEY FINAL REPORT

PREPARED FOR:
GEORGIA DEPARTMENT OF TRANSPORTATION

PREPARED BY:
CENTER FOR TRANSPORTATION AND THE ENVIRONMENT

IN ASSOCIATION WITH
WIRTHLIN WORLDWIDE

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EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of a business leader survey of senior executives in the Atlanta 13-county nonattainment area[1]. The survey, conducted in late October 2002, assessed employer awareness of and participation in commute assistance programs, services, and organizations. Survey respondents were also asked about their motivations for program adoption and the barriers preventing employers from establishing or expanding commute assistance programs.

The survey is part of a broad research and measurement program sponsored by the Georgia Department of Transportation (GDOT) known as the "Evaluation of the Effectiveness of Programs contained in the Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality." It is the second business leader survey conducted on behalf of the GDOT over the past three years of the research and measurement program.

The research and measurement program evaluates the effectiveness of programs aimed at changing individual and employer behavior about the voluntary use of alternative transportation to help reduce traffic congestion and improve air quality in the metropolitan Atlanta region. The programs are referred to as the Atlanta TDM Framework (Framework) and include organizations such as The Clean Air Campaign, Transportation Management Associations (TMAs), and the Atlanta Regional Commission.

KEY SURVEY RESULTS

The following presents some of the key recommendations from the October 2002 survey:

- When asked which has the greatest impact on their business operations, business leaders continue to rank traffic and congestion (92%) above air quality (3%).
- Employer awareness of The Clean Air Campaign remains high (89%).
- Employer awareness of regional support services has improved, most notably with 1-87-RIDEFIND, moving from 67% in 2001 to 78% in late 2002.
- Employer awareness of TMA organizations has increased, moving from 20% in 2001 to 32% in 2002.
- Employer contact with TMAs has increased from 27% in 2001 to 46% in 2002.
- Three-in-four (77%) business leaders offered at least one commute assistance program to employees in 2002, compared to 65% in 2001. The most commonly offered programs include compressed workweeks (74%), flexible schedules (70%), free ride homes (63%), carpool subsidies (58%), and teleworking (49%).
- Employers aware of The Clean Air Campaign or a TMA are more likely to offer commute assistance programs (34% and 55% likelihood, respectively) to their employees, while those who have been contacted by The Clean Air Campaign or a TMA show an even greater likelihood to offer programs (60% and 71% likelihood, respectively).
- Employers are not entirely clear on the range of programs that qualify as commuter assistance, particularly flexible work schedules, teleworking, and compressed workweeks.
- Employers cite improving employee benefits/morale (27%) as the top reasons they offer commute assistance programs to employees.
- To help expand programs, employers who offer commute assistance programs cite needs such as expanded services (30%), including more brochure/information distribution (12%),

[1] Thirteen (13) county nonattainment area includes Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale counties.

carpooling services (5%), and greater program assistance in employee discounts (4%), flexible scheduling (4%), and teleworking (3%).
- Business leaders who do not offer commute assistance programs cite issues with the geographic dispersion of employees' residences (either too widely spread or too close by), the nature of their business not being conducive to programs, transit access or availability, and cost of administration.

CONCLUSIONS

Key conclusions from the survey relate to business leaders' perception of the problem, their awareness of commute assistance programs, and the reasons for implementing these programs at their work sites. Key conclusions include:

- Business leaders continue to rank traffic and congestion above air quality when asked which has the greatest impact on their business operations.
- Three-in-four business leaders offer at least one commute assistance program to employees, a significant improvement from 2001.
- A positive correlation exists between employers that are aware of commute assistance services and those that offer commute assistance programs. However, a greater correlation exists between employers who have had contact with employer services organizations and those employers that offer commute assistance programs.
- Business leaders cite employee benefits and improving employee morale as the top reasons they offer commute assistance programs to employees.

RECOMMENDATIONS

After analysis of the survey results, the primary recommendation is "to focus on employer outreach, combined with regional and localized marketing of the impact traffic and congestion have on employer daily operations while efficiently utilizing and matching the appropriate tools and programs available to reduce single-occupant vehicle travel." Key recommendations from the survey findings for employer outreach services, marketing activities, and other programs administered by Framework partners include:

- Dedicate resources to support one on one contact between employers and Framework partners in their individual service areas.
- Place greater focus on enhancing programs in higher density employment centers and where infrastructure is available to support and compliment alternative mode use
- Facilitate employer awareness of the broad range of commute assistance available in the region
- Focus marketing and advertising messages on businesses' bottom line
- Promote the commonality of options and integration of services designed to reduce congestion with less emphasis on awareness of individual organizations

From the business leaders' perspective, the significant problem is traffic and congestion; therefore the overall strategy has to focus on reducing congestion. There are a variety of commute assistance services available to business leaders. However, the most efficient strategy to achieve enhanced employer adoption of commute assistance programs for their employees is through targeted marketing and outreach within specific service areas. This strategy allows for the continued promotion of the programs available with a focus on the impacts the programs have on an employers' bottom line. In addition, this strategy provides the opportunity for tailored outreach based on factors such as employment density and local infrastructure.

SECTION 1 OVERVIEW

PURPOSE OF THE REPORT

The purpose of this report is to present the results of a survey of business leaders representing 300 public and private employers in the 13-county metropolitan Atlanta region. The business leaders represent senior executives from a variety of disciplines, particularly human resources. The survey, conducted in October 2002, assesses the business leaders' level of awareness of commute assistance programs and their utilization of these programs.

The survey is part of a broad research and measurement program sponsored by the Georgia Department of Transportation (GDOT) known as the "Evaluation of the Effectiveness of Programs contained in the Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality." It is the second regional business leader survey conducted on behalf of the GDOT over the past three year of the research and measurement program.

The research and measurement program evaluates the effectiveness of programs aimed at changing individual and employer behavior about the voluntary use of alternative transportation to help reduce traffic congestion and improve air quality in the metropolitan Atlanta region. The programs are referred to as the Atlanta TDM Framework and include organizations such as The Clean Air Campaign, Transportation Management Associations, and the Atlanta Regional Commission.

ORGANIZATION OF THE REPORT

This report is divided into four sections.

- Section 1 – Purpose and organization of the report
- Section 2 – Description of data collection and methodology
- Section 3 – Description of survey results
- Section 4 – Conclusion and recommendations

This report also includes an appendix with the final survey instrument.

SECTION 2 DATA COLLECTION

This section briefly describes the business leader survey methodology.

QUESTIONNAIRE DEVELOPMENT

Survey questions in this survey are similar to the questions in the 2001 business leader survey. The measurement team circulated the questionnaire to Framework partners for comment and made minor changes to the survey. These changes include a shift in the responses for expected employee participation from a quantitative estimate to a ranking system. In addition, at The Clean Air Campaign's request, the measurement team established additional minimum quota areas for South Atlanta, Norcross and North Fulton/400 north corridor.

SAMPLE PREPARATION

The 300 public and private employers participating in the survey represent senior executives (i.e., president, manager) from a variety of disciplines, particularly human resources. The survey is not a true "random" sample of companies and organizations in the 13-county metropolitan Atlanta region. The measurement team purchased a list of companies from the 13-county metropolitan Atlanta region then identified and contacted companies consistent with the required size and geographic sampling requirements. The margin of error for a sample size of 300 is +/- 5.7% in 95 out of 100 cases (95% confidence level). The margin of error increases as the sample size or sub-sample decreases.

Similar to the 2001 survey, 82% of the organizations are private or publicly held companies and 14% are government organizations. Employers surveyed represent the 13-county metropolitan Atlanta area with a minimum number of employers within specifically defined employment centers. As shown in Table 1, the types of employers interviewed in 2002 are similar to those interviewed in 2001.

TABLE 1: EMPLOYER TYPE

Type of Employer	Percentage	
	2002	2001
Government	**14%**	**12%**
Federal	2%	2%
State	5%	6%
Local	7%	4%
Private/Publicly Held	**76%**	**82%**
Non-profit	**11%**	**4%**
Don't Know/Refused	**--**	**2%**

As shown in Table 2, the size of the employers who participated in the survey ranged from as small as 25 to more than 1,000. A higher proportion of larger businesses (1,000+ employees) participated in the 2002 survey than in 2001.

TABLE 2: EMPLOYEE SIZE

Employee Size	Percentage	
	2002	2001
25 – 49	10%	6%
50 – 99	24%	23%
100 – 499	37%	50%
500 – 999	6%	9%
1,000 or more	23%	11%

The measurement team established a minimum number of interviews for geographic areas generally similar to TMA coverage territories and conducted additional analyses of these territories by establishing nearly equal batches of high-, medium- and low-density areas (Table 3). Classification in the density areas is based on employment centers and available local infrastructure.

TABLE 3: LEVEL OF URBANIZATION/DENSITY

Level of Urbanization/Density	Percentage
High (n=113)	**38%**
Downtown	14%
Buckhead	11%
Midtown	8%
Perimeter	5%
Medium (n=93)	**32%**
North Fulton / 400 Corridor	10%
Airport	8%
Cumberland	8%
Decatur / Clifton Corridor	6%
Low (n=94)	**31%**
Norcross / Peachtree Industrial	11%
South Atlanta Other Cobb County	7%
Other Cobb County	5%
Town Center	4%
Other	2%
Gwinnett	1%

SURVEY ADMINISTRATION

Wirthlin Worldwide, Inc., the survey administrator, conducted the telephone surveys by randomly dialing from a list purchased from Survey Sampling Inc. Wirthlin conducted the survey from October 22 through November 8 2002.

SECTION 3 SURVEY RESULTS

BUSINESS LEADER PERCEPTIONS OF AIR QUALITY AND TRAFFIC / CONGESTION

Atlanta employers still believe traffic and congestion have a greater impact on employees than air quality. When asked which has the greatest impact on their business operations, business leaders overwhelmingly cite traffic and congestion (92%) over air quality (3%). Another 3% view them as having an equal impact.

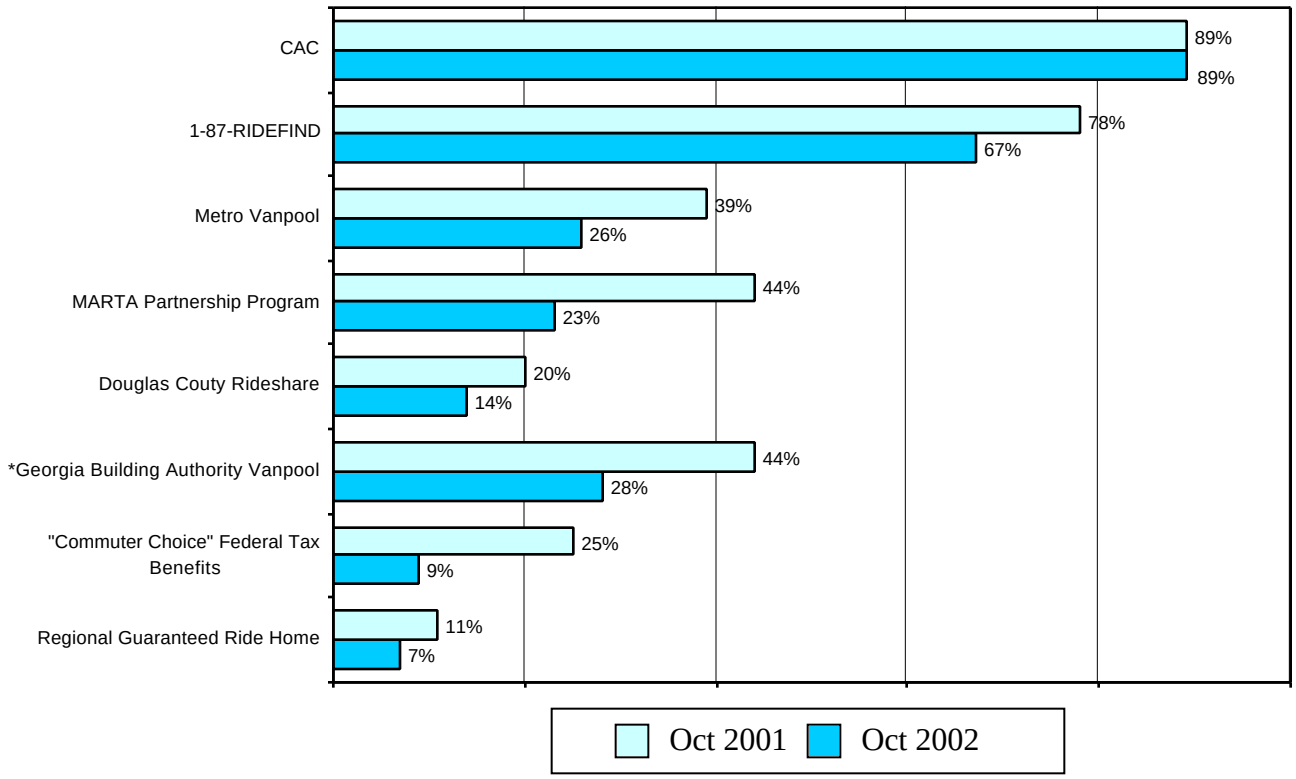
When asked to rate how well the Atlanta metropolitan region has performed addressing traffic and congestion in the region, more than half (57%) give only a one, two, or three rating on a ten-point scale. Interestingly, when business leaders were asked who is primarily responsible for addressing traffic and congestion, nearly half (46%) believe it is the local government while two-in-ten (19%) believe it is the responsibility of the Georgia Department of Transportation.

PROGRAM AWARENESS, CONTACT, AND PARTICIPATION

Awareness of Regional and Local Programs

Awareness of The Clean Air Campaign remains steady among local businesses. As shown in Figure 1, awareness of 1-87-RIDEFIND increased at a statistically significant rate, rising from 67% in 2001 to 78% today. Other statistically significant increases in regional program awareness included the MARTA Partnership (+21%), Georgia Building Authority Vanpool (+16%), and Commuter Choice (+16%).

FIGURE 1: AWARENESS OF REGIONAL PROGRAM AND SERVICES

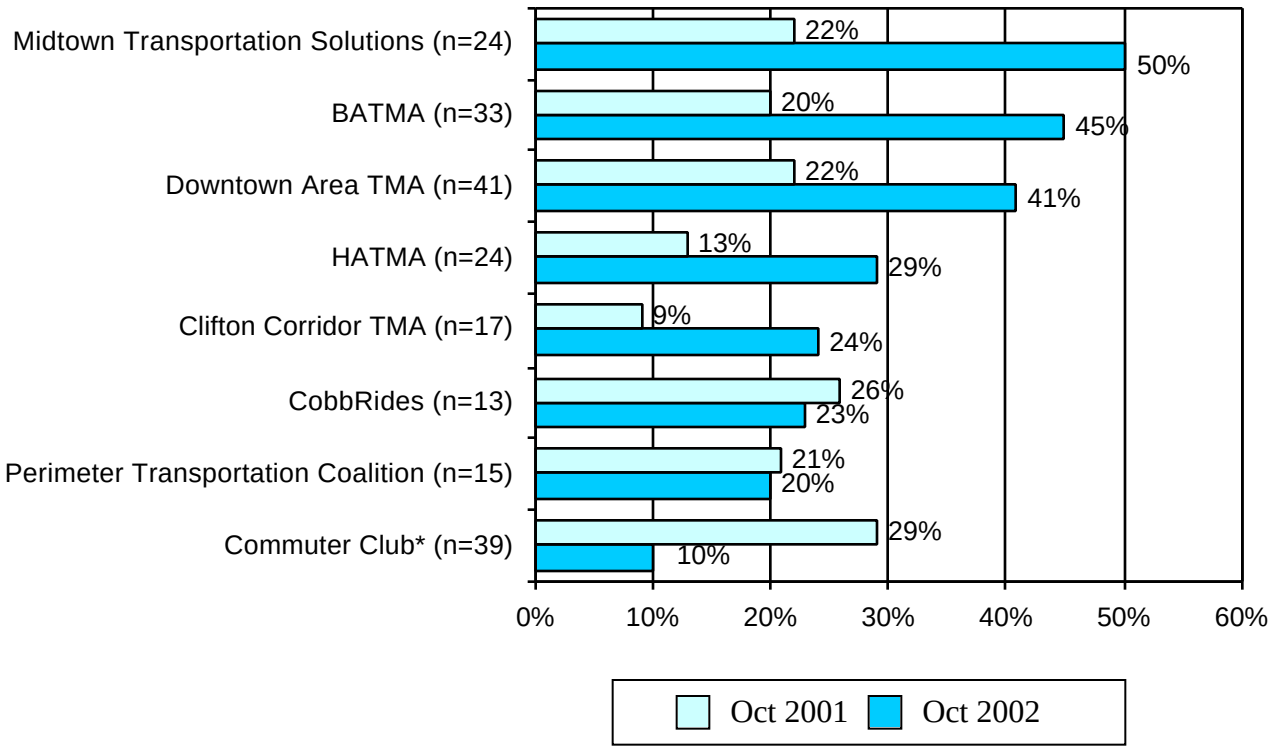


QUESTION: Have you heard of…?

**Note: 2001 results were filtered to only include government agencies to be comparable to 2002.*

Overall, business leaders' awareness of TMA organizations posted notable gains from last year. As shown in Figure 2, half of the business leaders surveyed who are served by Midtown Transportation Solutions are aware of the organization, compared to 22% last year. Awareness of BATMA more than doubled to 45% among the 33 business leaders interviewed within the BATMA service area (a 25% increase from last year). Average business leader awareness of TMAs increased from 19.7% in 2001 to 31.5% in 2002.

FIGURE 2: AWARENESS OF TMA ORGANIZATIONS

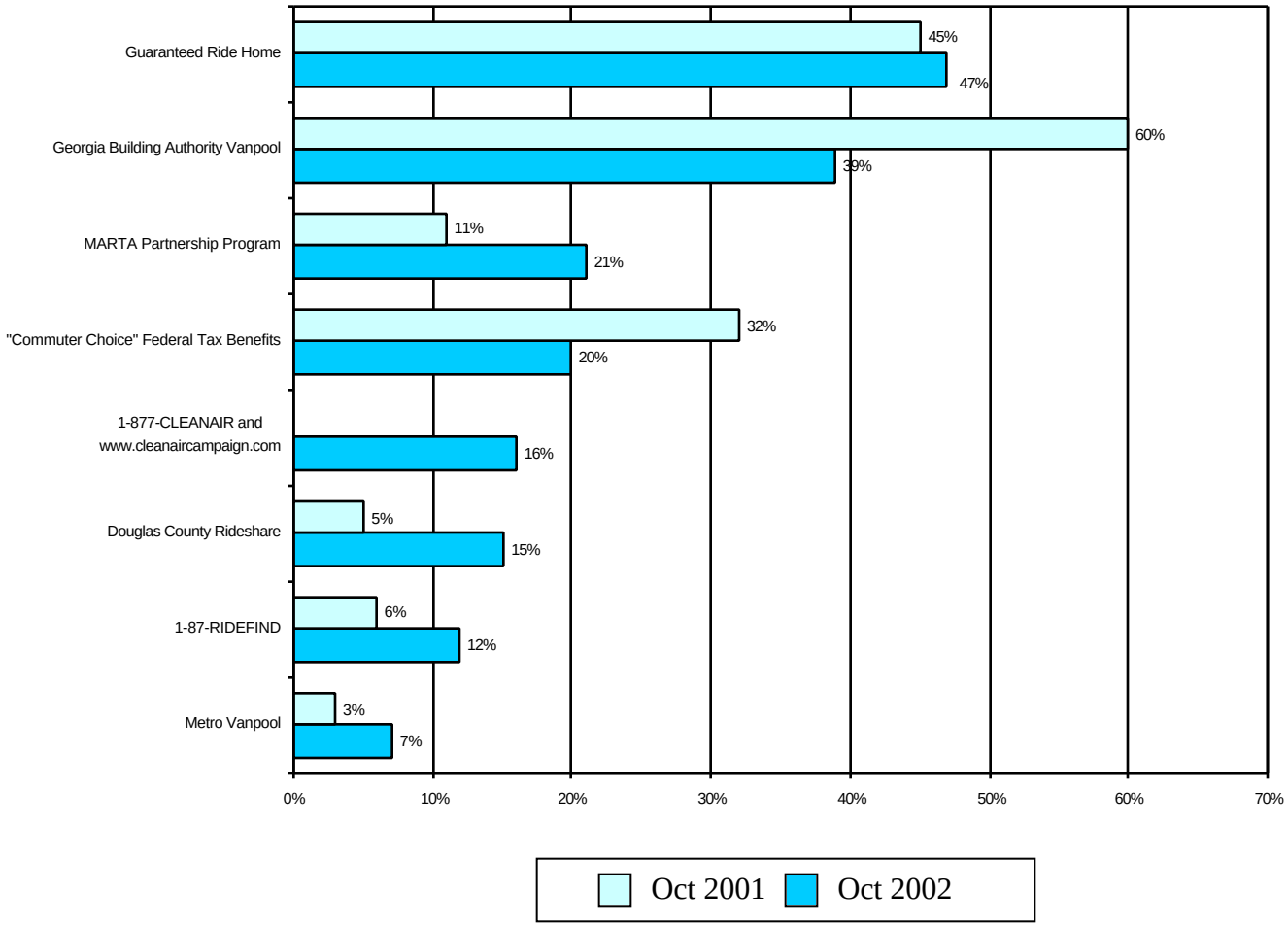


QUESTION: Have you heard of…?
*Notes: Commuter Club changed its name from Cumberland Transportation Network to Commuter Club in Spring 2002. Respondents were asked about both.

PARTICIPATION AND CONTACT WITH REGIONAL AND LOCAL PROGRAMS

In addition to increased awareness, employers have increased their contact and interaction with area programs relative to 2001. Figure 3 compares estimated participation levels in various regional services from 2001 to 2002. The findings indicate increased business leader participation (e.g., offer programs to employees) with many area programs. In addition, business leaders who say they participate in these regional programs are more likely to say they offer commute assistance to employees.

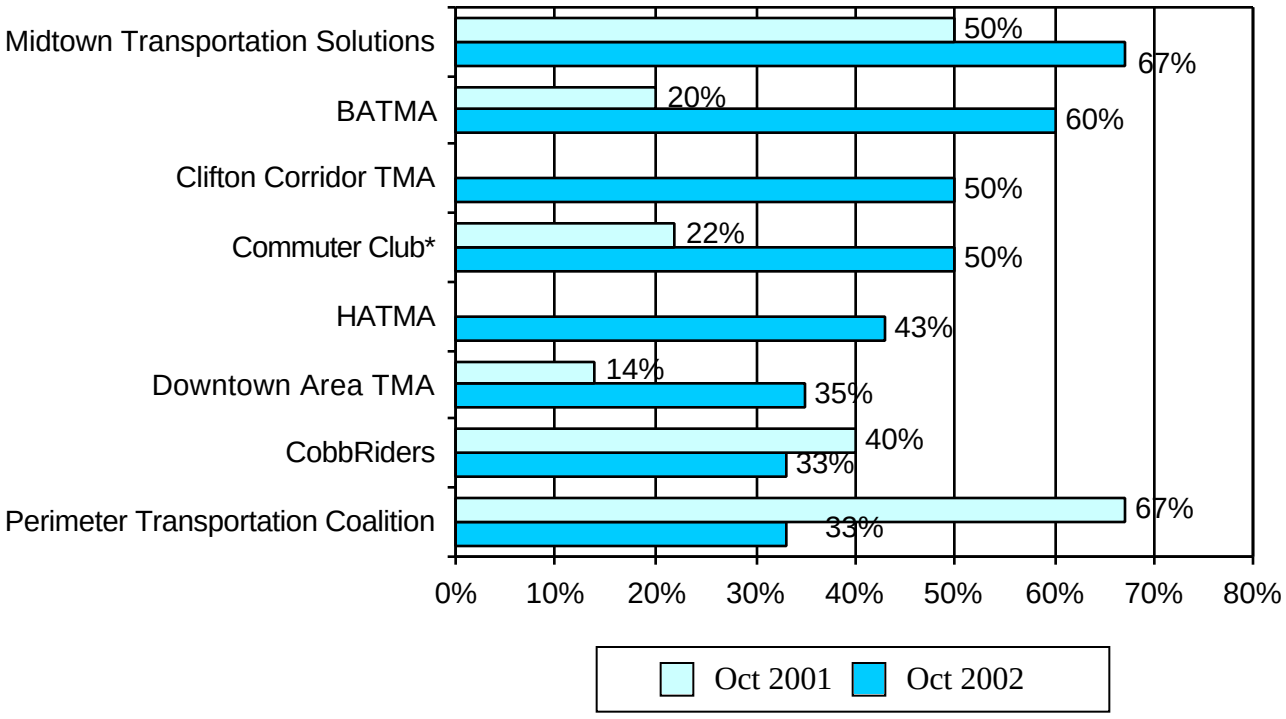
FIGURE 3: PARTICIPATION IN REGIONAL PROGRAMS



QUESTION: Is your organization currently participating in…? (Asked of those already aware of the service)
**Note: 2002: 1-877-CLEANAIR or* www.cleanaircampaign.com *was changed from Commute Options Program Georgia Building Authority sample size of 6 in 2001.*

As shown in Figure 4, of the business leaders that are aware of the organizations, average contact with TMAs has increased from 27% in 2001 to 46% in 2002. Several TMAs have increased their interaction with employers in their areas from 2001 to 2002. CobbRides and Perimeter Transportation Coalition did not show improvement, although the sample sizes for these TMAs were relatively small.

FIGURE 4: CONTACT WITH TMA ORGANIZATIONS

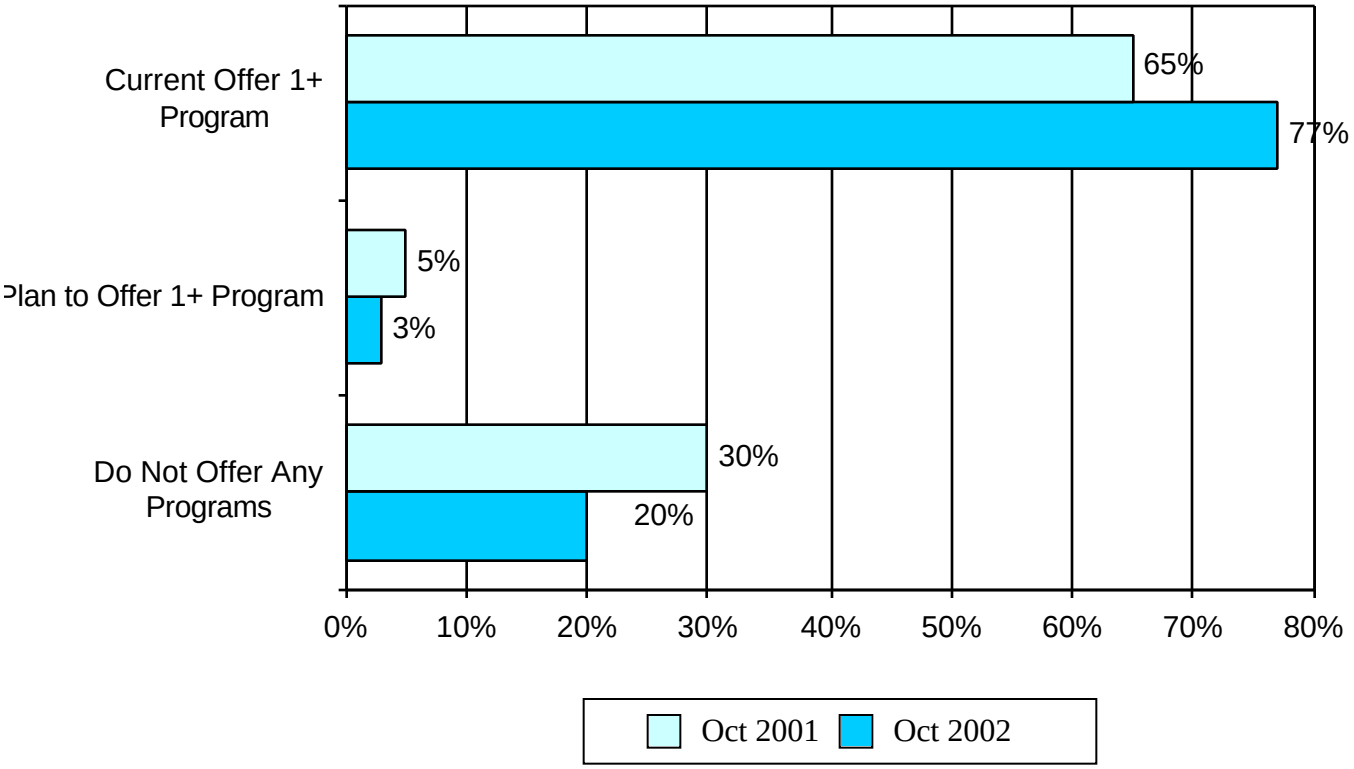


QUESTION: Have you or someone in your organization contacted or been contacted by…?
*Notes: Commuter Club changed its name from Cumberland Transportation Network to Commuter Club in Spring 2002. Respondents were asked about both.

Commute Assistance Program Offerings

As shown in Figure 5, when asked specifically about commute assistance programs, three-in-four (77%) employers claim to offer at least one program to employees, compared to 65% in 2001. In addition, these results indicate an increase in the number of business leaders who currently offer programs and an increase in the number of employers who plan to offer programs in 2003.

FIGURE 5: COMMUTE ASSISTANCE PROGRAM OFFERINGS

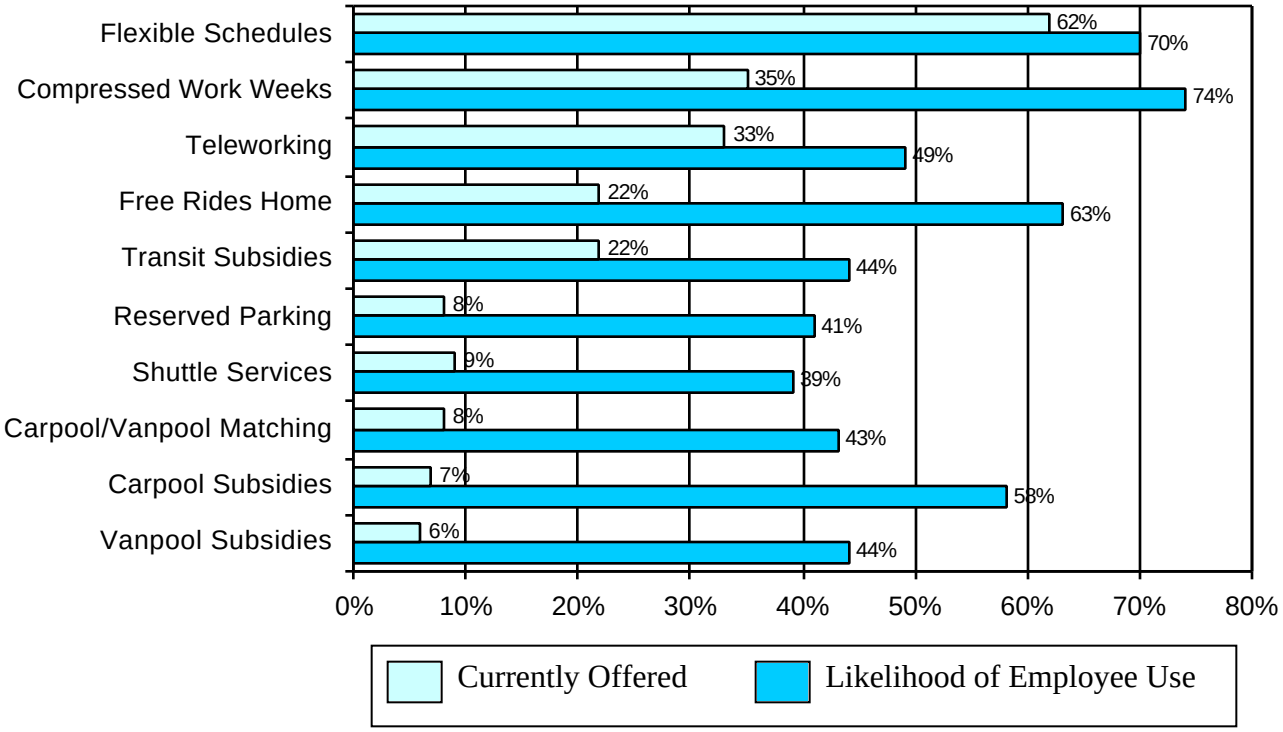


QUESTION: For each program I read, please tell me if you offer it, if you plan to offer it in the next year, if you do not offer or plan to offer the program, or if you don't know.
Note: In 2002, Commuter Choice tax benefits was added to the list of programs.

Most Commonly Offered Programs

A Figure 6 shows a comparison between programs most commonly offered and those with a high likelihood of employee use. The most commonly offered commute assistance programs among those surveyed include flexible schedules (62%), compressed workweeks (35%), and teleworking (33%). Compressed workweeks (74%), flexible schedules (70%), free rides home (63%), and carpool subsidies (58%) show the greatest potential for employee use. The differences between current program offerings and likelihood of use indicate potential growth for a variety of commute assistance programs. Further analysis of these findings reveals a need for increased depth in commute assistance programs; few employers offer a large number and diversity of programs. In addition, many of the programs offered are not the traditional commute-related programs, such as carpool or vanpool matching or subsidies.

FIGURE 6: PROGRAMS CURRENTLY BEING USED AND LIKELIHOOD OF EMPLOYEE USE



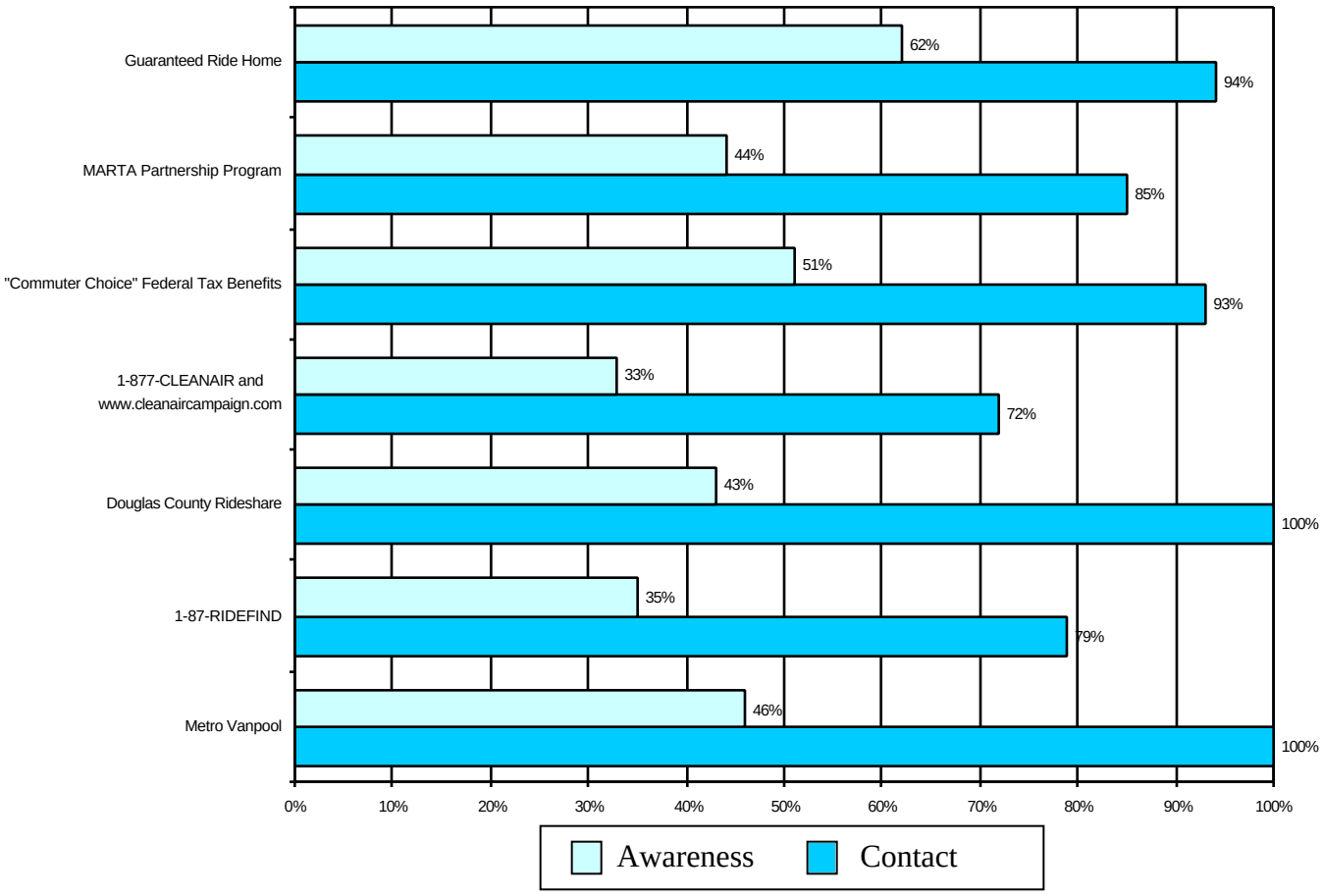
QUESTION: Can you please describe the program or incentive your company offers to your employees? Do you offer any other programs or incentives? For each program I read, please tell me if you offer it, if you plan to offer it in the next year, if you do not offer or plan to offer the program, or if you don't know. If you were to offer…, how likely do you think your employees would be to take advantage of this service?

Interestingly, business leaders are more likely to respond that they offer a commute assistance program when they are asked specifically (prompted) about programs than when they are asked in general (unprompted). These results suggest many business leaders are not entirely clear about the range of programs that qualify as commute assistance, particularly flexible schedules, teleworking, and compressed workweeks. Employers claim to offer these programs to improve employee benefits and employee morale and may not perceive these types of programs to be commute assistance.

Impact of Awareness, Participation, and Contact on Employer Programs

As shown in Figure 7, business leaders aware of regional programs are more likely to offer commute assistance programs, while those who have been contacted show an even greater likelihood to offer commute assistance programs. These findings are also true for TMA organizations; employers who have been in contact with their local TMA are more likely to offer employees commute assistance than employers who are only aware of their local TMA.

FIGURE 7: COMMUTE ASSISTANCE OFFERINGS – REGIONAL PROGRAM AWARENESS VS. CONTACT



QUESTION: Have you heard of...?

Program Offerings by Employer Size

According to the survey findings, mid size employers with 100 – 499 employees (86%) and smaller employers with less than 100 employees (75%) are more likely to offer commute assistance programs. These employers also show significant increases in program adoption since 2001. Survey findings reveal 69% of employers with 500 or more employees offer commute assistance programs, a slight decrease from 2001.

Program Offerings by Density (Level of Urbanization and Infrastructure Access)

Overall, employers in high-density employment areas are more likely to offer commute assistance programs. Business leaders in low-density areas are more likely to offer alternative work schedules (48%, compared to 39% in high-density areas). In addition, when analyzing the likelihood of employee use for programs employers have not yet implemented, employers in high-density employment areas score the best (highest likelihood of future use). Employers in high-density areas offer a larger number of programs and have a greater desire to expand their programs.

Employers located in low-density areas also outpace employers in medium-density areas with use of teleworking, free ride homes, and carpool and vanpool matching services. In addition, a larger

number of employers in medium- and low-density areas are likely to not fully understand the range of programs that qualify as commute assistance programs; particularly employers in low-density areas.

PROGRAM EXPANSION

Motivating Factors to Program Adoption

When asked why they offer commute assistance programs and services, just over one-in-four (27%) employers offer programs as an employee benefit and to improve employee morale. Although in much smaller numbers, business leaders also cite reasons such as to help the environment (9%), ease local traffic (9%), retain employees (5%) and reduce absenteeism (4%).

TABLE 4: MOTIVATION FOR PROGRAM ADOPTION

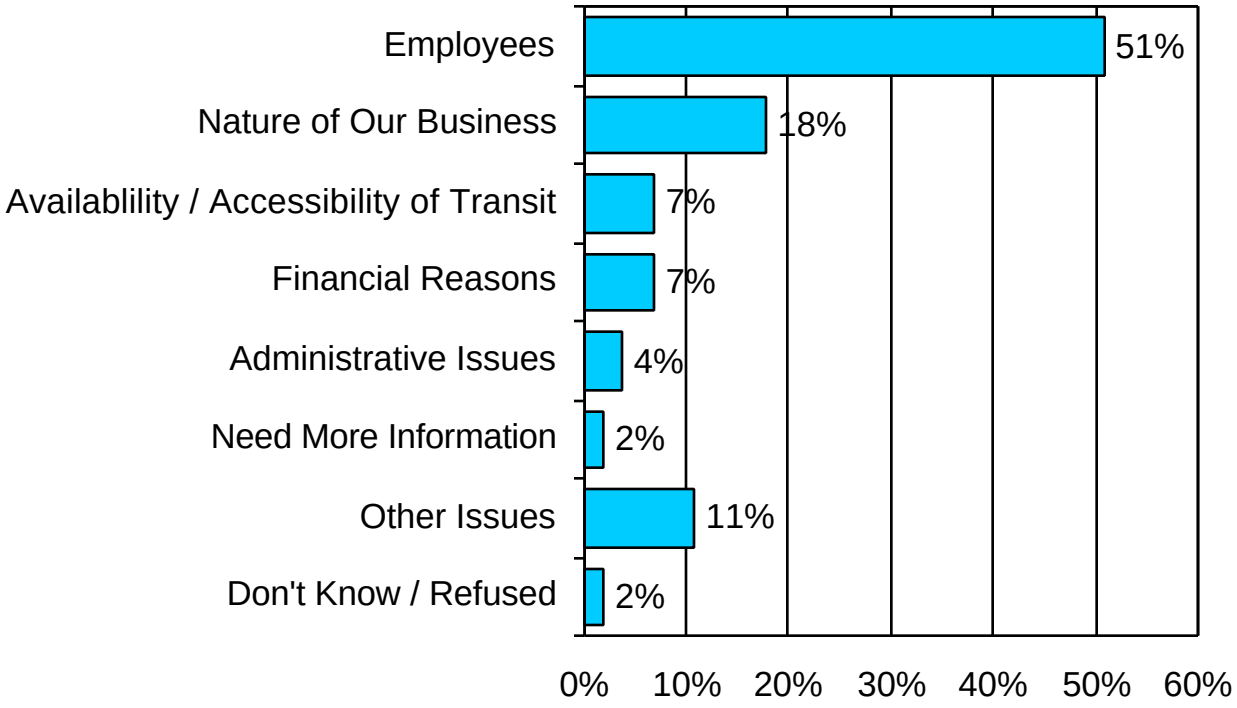
Motivating Factors	Percentage
Offer Benefit / Improve Morale	27%
Ease Traffic	9%
Help Environment	9%
Retain Employees / Reduce Turnover	5%
Reduce Absenteeism	4%
Be a Good Neighbor	4%
Increase Productivity	4%
Get Employees to Work	4%
Other Reasons	18%
Don't Know / Refused	7%

QUESTION: Why do you offer commuter information or assistance programs?

Barriers to Program Adoption

As shown in Figure 8, when asked why they do not offer commute assistance programs and services, half (51%) of all employers indicate barriers related in some way to their employees. Employee related barriers ranged from employees being spread all over the region, employees living close to work, employees working different hours, and employees having their own transportation. Eighteen percent of the responses from business leaders stated the programs did not fit with their business. Additional barriers included availability/access to transit (7%), financial reasons (7%), and administrative issues (4%).

FIGURE 8: BARRIERS TO PROGRAM ADOPTION



QUESTION: Why doesn't your company offer commute programs?
NOTE: Respondents were allowed to provide multiple answers in 2001.

Barriers by Density

Similar to employers in high-density areas, employers in both medium and low-density employment areas mainly cite employee barriers as the main reason they do not offer commute assistance programs. Employers in high-density areas are more likely to state the nature of the business not being conducive to programs. Cost, as a barrier to implementing programs, was mainly cited among medium and high-density regions.

Parking Availability

An additional barrier is the large amount of parking available in the region, especially the availability of free parking. Ninety-four percent of employers stated they had adequate parking for employees, and nearly three quarters (74%) of available parking is free of charge. As expected, further analysis of the survey findings by geographic territory reveals free parking is more available in the suburbs than in Downtown, Midtown, and Buckhead. Parking is least plentiful in the region's dense corridors where better transit infrastructure exists.

Needs and Opportunities to Expand or Improve

When business leaders who currently offer commute assistance programs were asked what will help them expand or improve their programs, fewer indicated a need to expand the availability of general commute assistance services in 2002 (down from 37% to 30%). It is likely business leaders are seeing less of a need to expand services because they are more aware of the organizations and programs available to them (awareness is 32% overall). Reduced desire for expansion of services might also imply a lack of interest or apathy. However, as mentioned in the previous section, there is a much

greater likelihood of employers offering commute assistance programs if they have had contact with the organizations than those simply aware of the organizations.

Although fewer employers expressed a need for expanded commute assistance services, a significant demand for specific commute assistance services, programs, and other information remains. All needs cited by business leaders are presented in Table 5. The only statistically significant finding is a decrease in the number of business leaders who believe general expansion of services is needed.

Some of the most frequently mentioned needs to help employers expand programs include: brochure/information distribution (12%), assistance with flexible scheduling (4%), assistance with employee discounts (4%), assistance with telecommuting (3%), improved traffic conditions, (5%) and more public funding (2%). Employer desire for carpooling services rose to 5% in 2002 after registering less than 1% in 2001. Many of the remaining needs cited by business leaders are largely out of the direct control of commute assistance programs, particularly improved public transportation (13%), improved traffic conditions (5%), and more public funding (2%).

TABLE 5: IMPLEMENTATION OR EXPANSION OF PROGRAMS

Needs and Opportunities	2002	2001
Services/Programs	**30%**	**37%**
Send Brochures/Information	12%	14%
Offer Carpooling Services	5%	**
Assist w/ Flexible Scheduling	4%	4%
Assist w/ Employee Discounts	4%	4%
Assist w/ Telecommuting	3%	2%
Expand Services (General)	2%	13%
Other	**21%**	**10%**
Improve/Expand Public Transportation	13%	NA
Improve Traffic Conditions	5%	9%
Public Funding/More Money	2%	NA
Relocate Office	1%	**
Better Service (General)	NA	1%

QUESTION: What is the one thing that could help your company expand on or improve upon your current commute option programs**?**

SECTION 4 CONCLUSIONS AND RECOMMENDATIONS

Previous sections of this report present some of the key findings of the business leader survey. The final question is: "do these findings suggest any need or opportunity to improve the current structure for how commute assistance programs and services are provided to area employers". Conclusions and recommendations are presented below.

CONCLUSIONS

Business leaders continue to rank traffic and congestion above air quality when asked which has the greatest impact on their business operations. Business leader are increasingly aware of regional programs and services, such as The Clean Air Campaign, 1-877-CLEANAIR and 1-87-RIDEFIND, or more localized assistance service organizations, such as Transportation Management Associations (TMAs). Direct contact with these programs, services, and organizations has also improved over the past year.

Three-in-four business leaders now offer at least one commute assistance program to employees, a significant improvement from 2001. Overall, current program offerings and the likelihood of future program offerings are greatest among employers in high-density employment areas.

A positive correlation exists between employers that are *aware* of commute assistance services and those that offer commute assistance programs. An even greater correlation exists between employers that are *contacted* by these organizations.

Business leaders cite employee benefits and improving employee morale as the top reasons they offer commute assistance programs to employees. To expand or improve upon current programs, these business leaders would like to see expanded commute assistance services, improved bus and transit services, greater brochure/information distribution, and additional program set-up assistance.

Business leaders who do not offer commute assistance programs cite issues with geographic dispersion of employees' residences (either too widely spread or too close by), nature of business not being conducive to programs, transit access or availability, and cost or administration. Employers in low-density areas cite transit access or availability more often, while employees in medium-density areas are more likely to cite the nature of their business and cost as deterrents to implementing commute assistance programs.

RECOMMENDATIONS

The principle recommendation is "to focus on employer outreach, combined with regional and localized marketing of the impact traffic and congestion have on employer daily operations while efficiently utilizing and matching the appropriate tools and programs available to reduce single-occupant vehicle travel." Recommendations that build on this principle recommendation include:

- Dedicate resources to support one-on-one contact between employers and Framework partners in their individual service areas**.** Survey findings clearly show a positive relationship between employer contact with commute assistance service providers and an employer's program offerings. Although fewer business leaders believe an expansion of services is necessary, direct contact is pivotal to their understanding of the commute assistance services available to them. Additional analysis of employers by employment density and urbanization reveals that employers in low and medium-density areas will require more education, as they are less familiar with the programs and services available. In addition, they are likely to require a different set of commute assistance services for their employees based on infrastructure and resource availability. Additional analyses of the survey results indicate the level of business leader's understanding of commute assistance programs and the availability

of resources varies widely among employers in the region, therefore, outreach efforts need to be tailored. Regardless of employer size or employment area density, there is opportunity for growth for all programs as indicated by the gap between current program offerings and likelihood of use.

- Place greater focus on enhancing programs in higher density employment centers and where infrastructure is available to support and compliment alternative mode use. Employers in highly dense areas offer a greater number of commute assistance programs and have a higher likelihood to offer additional programs than employers in less dense areas. While program enhancement is important in all areas, commute changes and benefits can be achieved on a larger scale and more efficiently when Framework partners focus in areas with greater concentrations of commuters and infrastructure to support alternative mode use.

- Facilitate employer awareness of the broad range of commute assistance available in the region. Survey findings show a positive relationship between employer awareness of the commute assistance programs available and programs offered by employers. This relationship is important because the survey findings indicate employers do not always understand that some of the programs they offer are actually commute assistance programs.

  As the regional marketing arm of commuter assistance programs, The Clean Air Campaign should assume the role of TDM champion. In this capacity, The Clean Air Campaign should promote increased transit availability, infrastructure expansion, and availability of commute options on a region-wide basis.

- Focus marketing and advertising messages on businesses' bottom line. Business leaders are aware of the impacts of traffic and congestion on business operations. Two of the primary reasons they offer commute assistance programs—to increase employee benefits and improve employee morale—influence daily business operations and translate into greater productivity. Marketing and outreach messages should highlight these positive impacts and explain how they translate into savings for a businesses' bottom line. The use of case studies is one option for sharing this information with businesses as they can demonstrate leadership, highlight specific cost savings, and demonstrate benefits to the employer.

- Promote the commonality of options and integration of services designed to reduce congestion with less emphasis on awareness of individual organizations. There should be a greater acknowledgement by Framework partners of the role all commute options play in achieving congestion reduction. Framework partners must integrate their activities and provide seamless yet targeted services to employers while promoting the various options available within service areas and across the region. A balance must be struck between promoting various strategies and the common thread of congestion reduction.

APPENDIX A – SURVEY QUESTIONNAIRE

CONFIDENTIAL
CONGESTION & AIR QUALITY BUSINESS TRACKING STUDY (#8283)
FIELD DATES: October 22 – November 8, 2002
SAMPLE SIZE: 300 businesses in the Atlanta Metro area
MARGIN OF ERROR: ± 5.7 percentage points at the 95% confidence level

COMPANY PROFILE

1. IN TOTAL, how many employees work for your company at all worksites in the Atlanta area?

2002	2001	
10%	6%	25-49
24%	23%	50-99
37%	50%	100-499
6%	9%	500-999
23%	11%	1,000 or more

---

2. How many worksites does your organization or company have in the Atlanta region?

2002	2001	
35%	39%	One site
29%	29%	2-5 sites
9%	11%	6-9 sites
14%	11%	10-25 sites
12%	11%	Over 25 sites
1%	**	Don't know/Refused

[ASKED IF COMPANY HAS MORE THAN ONE WORKSITE IN THE ATLANTA REGION (n=192)]

3. And, how many employees work for your company at YOUR PRIMARY worksite, that is, at the location where you work most often?

2002	2001	
5%	1%	Less than 10
10%	12%	24 - 10
22%	14%	25 - 49
20%	23%	50 - 99
33%	39%	100 - 499
3%	6%	500 - 999
7%	3%	1,000 or more
--	1%	Don't know/Refused

---

4. I'm going to read a list of several types of businesses and would like you to tell me which ONE best describes the work done by your organization.

2002	2001	
15%	33%	Business or Personal Services
12%	14%	Retail Trade
7%	10%	Manufacturing
5%	7%	Public Administration
5%	5%	Transportation
3%	5%	Wholesale
6%	4%	Banking/Finance
2%	--	Health Care
4%	4%	Construction
1%	4%	Insurance
6%	4%	Non-Profit
9%	4%	Education
1%	3%	Real Estate
5%	--	Restaurant
1%	--	Engineering
2%	--	Government Agency
1%	2%	Public Utilities
1%	--	Hospitality - General
1%	--	Hotel
1%	--	Telecommunications
--	1%	Agriculture, Forestry, Fishing
2%	1%	Environmental
10%	2%	Other
--	1%	Don't know/Refused

---

5. And, which of the following best describes the type of organization you work for:

2002	2001	
14%	**12%**	**TOTAL GOVERNMENT (NET)**
2%	2%	Federal Government
5%	6%	State Government
7%	4%	Local Government
76%	**82%**	**A Private or Publicly Held Company**
11%	**4%**	**A Non-Profit Organization**
--	2%	Don't know/Refused

For the next few questions, I'd like you to answer about YOUR PRIMARY WORKSITE in the Atlanta area. By primary worksite, we mean the location where you work most often. Please think specifically about this worksite and answer the questions with that worksite in mind.

6. Which of the following best describes the town or city where your PRIMARY worksite is located?

2002	2001	
14%	11%	DOWNTOWN (Includes Downtown, CNN Center, Federal/State Office Buildings, Georgia State University, The Capitol, 5 Points, Underground and Peachtree Center)
11%	N/A	NORCROSS/PEACHTREE INDUSTRIAL/141 (Includes Norcross, Duluth, Berkeley Lake, Mechanicsville and Peachtree Corners)
11%	8%	BUCKHEAD (Includes Buckhead, Lenox and Phipps)
10%	N/A	NORTH FULTON/400 CORRIDOR (Includes Roswell, Alpharetta, Crabapple and Mountain Park)
8%	3%	MIDTOWN (Includes Midtown, Georgia Tech and Colony Square)
8%	11%	AIRPORT (Includes Hartsfield, College Park, Forest Park, East Point, and Hapeville)
8%	10%	CUMBERLAND (Includes Cumberland, Galleria, Vinings, Dobins Air Force Base, Marietta)
7%	N/A	SOUTH ATLANTA (Peachtree City, Newnan, Fayetteville, Fulton Industrial Blvd McDonough, Locust Grove, Hampton, Stockbridge, Jonesboro, Fairburn, Union City)
6%	5%	DECATUR (Includes Clifton, Emory, Decatur, Druid Hills, Inman Park, Little 5-Points, Oakhurst and Virginia Highlands)
5%	6%	OTHER COBB COUNTY LOCATIONS
5%	10%	PERIMETER (Includes Perimeter, Dunwoody, Sandy Springs and Brookhaven)
4%	5%	TOWN CENTER (Includes Town Center, Acworth and Kennesaw)
1%	8%	Gwinnett
2%	2%	Other

---

9. Is there adequate parking for all employees at or near your worksite?

2002	2001	
94%	91%	Yes
6%	9%	No

9A. And, is the parking available at or near your worksite:

2002	2001	
(n=300)	(n=276)	
74%	83%	Parking is free of charge
11%	8%	Parking is paid by company
9%	7%	Parking is paid by employees
6%	1%	Parking fee is split between company and employee
**	**	Something else
**	**	Don't Know/Refused

TRAFFIC CONGESTION / AIR QUALITY AWARENESS & ATTITUDES

12. On a scale of 1 to 10 where 1 means "terrible, couldn't be worse" and 10 means "terrific, couldn't be better" how would you rate the Atlanta metropolitan region's performance on addressing AIR QUALITY ISSUES?

2002	**2001**	
7%	**12%**	**Top 3 Box (8-10)**
1%	3%	10
1%	1%	9
5%	7%	8
9%	10%	7
11%	8%	6
30%	36%	5
11%	11%	4
12%	9%	3
6%	6%	2
12%	10%	1
30%	**24%**	**Bottom 3 Box (1-3)**
1%	--	Don't Know/Refused
4.5	**4.9**	**Mean**

12A. Who do you believe is primarily responsible for addressing air quality issues?

37%	The Local Government
12%	Citizens
8%	The Federal Government
7%	Environmental groups
6%	GA (State) Department Of Transportation
4%	The Governor
3%	Public (Government) and private (Citizens)
3%	State Government
3%	Mayor
2%	Regional organizations (Atlanta Regional Commission)
2%	Everybody
2%	The Department Of Transportation (Federal)
1%	Clean air campaign
1%	EPA
1%	The business community
4%	Other
4%	Don't Know/Refused

---

13. To what degree do you feel air quality issues affect your employees? Do they affect them to a great degree, to some degree, very little, or not at all?

2002	**2001**	
68%	**67%**	**Total Has An Affect**
31%	**31%**	**Total Does Not Have An Affect**
13%	16%	Affects to a great degree
55%	51%	Affects to some degree
28%	25%	Affects very little
3%	6%	Does not affect at all
**	2%	Don't Know/Refused

---

14. On a scale of 1 to 10 where 1 means "terrible, couldn't be worse" and 10 means "terrific, couldn't be better" how would you rate the Atlanta metropolitan region's performance on addressing TRAFFIC AND CONGESTION?

2002	2001	
4%	**8%**	**Top 3 Boxes (8 - 10)**
**	1%	(10) Terrific
1%	2%	9
2%	6%	8
3%	4%	7
6%	4%	6
13%	15%	5
17%	13%	4
18%	17%	3
16%	11%	2
23%	30%	(1) Terrible
57%	**57%**	**Bottom 3 Boxes (1 - 3)**
1%	--	Don't Know/Refused
3.3	**3.4**	**Mean**

14A. Who do you believe is primarily responsible for addressing traffic and congestion issues?

46%	The Local Government
19%	GA (State) Department Of Transportation
8%	The Department Of Transportation (Federal)
4%	The Governor
3%	The Federal Government
3%	Citizens
3%	Regional organizations (Atlanta Regional Commission)
2%	Public (Government) and private (Citizens)
2%	State Government
2%	Department of Transportation - General
1%	Mayor
1%	Everybody
1%	The business community
4%	Other
3%	Don't Know/Refused

---

15. To what degree do you feel traffic and congestion affect your employees? Do they affect them to a great degree, to some degree, very little, or not at all?

2002	2001	
90%	**89%**	**Total Has An Affect**
10%	**11%**	**Total Does Not Have An Affect**
57%	52%	Affects to a great degree
33%	36%	Affects to some degree
9%	9%	Affects very little
1%	2%	Does not affect at all
--	1%	Don't Know/Refused

---

16. Do you think **[ROTATE]** air quality issues … or … traffic and congestion, have a greater impact on your business and its daily operations?

2002	2001	
92%	89%	Traffic and congestion
3%	3%	Air quality
3%	5%	Both equally
1%	3%	Don't know/Refused

COMMUTE PROGRAM OFFERING/INVOLVEMENT

17. Does your company offer commuter information or assistance programs to help employees with their commute?

2002	2001	
33%	20%	Yes
67%	80%	No
--	1%	Don't know/Refused

[ASKED IF COMPANY DOES OFFER ALTERNATIVE COMMUTE PROGRAMS (n=98)]

17A. Can you please describe the programs or incentives your company offers to employees? **[PROBE:** What other commuter information, transportation programs or incentives does your company offer?]

2002	2001	
43%	28%	Subsidies or discount passes for employees who ride transit
20%	--	Information on commute programs
12%	20%	Teleworking opportunities
10%	10%	Free rides home or guaranteed ride home
8%	18%	Carpool or vanpool matching services
7%	8%	Subsidies for employees who carpool
7%	13%	Shuttle services
5%	3%	Subsidies for employees who vanpool
5%	27%	Flexible arrival and departure schedules
4%	8%	Reserved parking spaces for carpools and vanpools
3%	5%	Tax benefits for transportation costs
3%	12%	Compressed or alternative work weeks
2%	--	Nothing
17%	--	Other programs
3%	5%	Don't Know/Refused

[ASKED IF COMPANY DOES NOT OFFER ALTERNATIVE COMMUTE PROGRAMS (n=202)]

17B. Does your building or property manager offer commuter information or assistance programs to help your employees with their commute?

2002	2001	
8%	4%	Yes
90%	93%	No
2%	4%	Don't Know/Refused

[ASKED IF BUILDING OR PROPERTY MANAGER OFFERS ALTERNATIVE COMMUTE PROGRAMS (n=17)]

17C. Can you please describe the programs or incentives that the building or property manager offers? **[PROBE:** What other commuter information, transportation programs or incentives does your building or property manager offer?]

2002	2001	
24%	--	Carpool or vanpool matching services
18%	11%	Subsidies or discount passes for employees who ride transit
18%	--	Information on commute programs
12%	33%	Shuttle services
6%	--	Flexible arrival and departure schedules
35%	22%	Other programs
6%	11%	Don't Know/Refused

Now, I'd like to ask some questions about specific commuter information or assistance programs your company might offer or thinking about offering employees in the future.

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER FREE RIDES HOME ON AN UNAIDED BASIS (n=290)]

18. Does your company currently offer free rides home or guaranteed rides home to employees who carpool, vanpool, take transit or have emergencies during the business day?

2002	2001	
19%	12%	Yes, currently offer
**	1%	Plan to offer in the next year
80%	84%	No, do not currently offer
1%	3%	Don't Know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS FREE RIDES HOME (n=66)]

18A. Approximately what percentage of your employees currently use this service?

2002	2001	
3%	5%	91% – 100%
--	--	81% – 90%
--	--	71% – 80%
5%	--	61% – 70%
3%	--	51% – 60%
--	5%	41% – 50%
2%	--	31% – 40%
5%	5%	21% – 30%
5%	10%	11% – 20%
56%	49%	1% – 10%
12%	27%	0%
11%	--	Don't Know/Refused
14.2	**12.5**	**Mean**

[ASKED IF COMPANY DOES NOT CURRENTLY OFFER FREE RIDES HOME (n=232)

18B. If you were to offer free rides home, how likely do you think your employees would be to take advantage of this service?

63%	**Total Likely**
37%	**Total Unlikely**
22%	Very likely
41%	Somewhat likely
16%	Somewhat unlikely
21%	Not at all likely
1%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER FLEXIBLE ARRIVAL AND DEPARTURE SCHEDULES ON AN UNAIDED BASIS (n=295)]

19. Does your company currently offer flexible arrival and departure schedules to help employees avoid traffic?

2002	2001	
60%	51%	Yes, currently offer
1%	2%	Plan to offer in the next year
38%	46%	No, do not currently offer
**	2%	Don't Know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS FLEXIBLE ARRIVAL AND DEPARTURE SCHEDULES (n=182)]

19A. Approximately what percentage of your employees currently use this service?

2002	2001	
11%	19%	91% – 100%
7%	4%	81% – 90%
5%	8%	71% – 80%
4%	2%	61% – 70%
4%	1%	51% – 60%
18%	12%	41% – 50%
5%	4%	31% – 40%
9%	7%	21% – 30%
11%	7%	11% – 20%
21%	31%	1% – 10%
2%	4%	0%
3%	--	Don’t Know/Refused
44.3	**43.8**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER FLEXIBLE ARRIVAL AND DEPARTURE SCHEDULES (n=113)]

19B. If you were to offer flexible arrival and departure schedules (or flextime), how likely do you think your employees would be to take advantage of this service?

70%	**Total Likely**
27%	**Total Unlikely**
34%	Very likely
36%	Somewhat likely
8%	Somewhat unlikely
19%	Not at all likely
3%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER COMPRESSED OR ALTERNATIVE WORK WEEKS ON AN UNAIDED BASIS (n=297)]

20. Does your company currently offer compressed or alternative work weeks, for example, an employee could work a full work week in four 10-hour days?

2002	**2001**	
32%	20%	Yes, currently offer
3%	4%	Plan to offer in the next year
65%	73%	No, do not currently offer
**	4%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS COMPRESSED OR ALTERNATIVE WORK WEEKS (n=98)]

20A. Approximately what percentage of your employees currently use this service?

2002	2001	
5%	6%	91% – 100%
2%	5%	81% – 90%
6%	3%	71% – 80%
1%	2%	61% – 70%
4%	5%	51% – 60%
8%	9%	41% – 50%
4%	2%	31% – 40%
11%	12%	21% – 30%
11%	5%	11% – 20%
41%	46%	1% – 10%
1%	6%	0%
5%	--	Don't Know/Refused
29.1	**28.2**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER COMPRESSED OR ALTERNATIVE WORK WEEKS (n=193)]

20B. If you were to offer compressed or alternative work weeks to employees, how likely do you think your employees would be to take advantage of this service?

74%	**Total Likely**
24%	**Total Unlikely**
40%	Very likely
34%	Somewhat likely
7%	Somewhat unlikely
17%	Not at all likely
2%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER TELEWORKING ON AN UNAIDED BASIS (n=288)]

21. Does your company currently allow employees to telework, either from home or from a teleworking center?

2002	2001	
27%	23%	Yes, currently offer
3%	2%	Plan to offer in the next year
69%	73%	No, do not currently offer
**	2%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS TELEWORKING (n=91)

21A. Approximately what percentage of your employees currently telework?

2002	2001	
1%	--	91% – 100%
--	1%	81% – 90%
3%	--	71% – 80%
--	1%	61% – 70%
1%	--	51% – 60%
4%	5%	41% – 50%
--	1%	31% – 40%
4%	9%	21% – 30%
9%	10%	11% – 20%
71%	67%	1% – 10%
2%	5%	0%
3%	--	Don’t Know/Refused
12.9	**12.6**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER TELEWORKING (n=199)]

21B. If you were to offer teleworking programs to employees, how likely do you think your employees would be to take advantage of this service?

49%	**Total Likely**
45%	**Total Unlikely**
27%	Very likely
22%	Somewhat likely
6%	Somewhat unlikely
40%	Not at all likely
6%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER EMPLOYEE SHUTTLE SERVICES ON AN UNAIDED BASIS (n=293)]

22. Does your company currently offer a shuttle service that employees can take to transit stops, parking facilities, or for errands throughout the day?

2002	**2001**	
7%	3%	Yes, currently offer
--	1%	Plan to offer in the next year
92%	93%	No, do not currently offer
**	2%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS EMPLOYEE SHUTTLE SERVICES (n=28)]

22A. Approximately what percentage of your employees currently take advantage of this service?

2002	2001	
14%	--	91% – 100%
4%	--	81% – 90%
4%	--	71% – 80%
--	--	61% – 70%
4%	--	51% – 60%
--	--	41% – 50%
7%	--	31% – 40%
4%	6%	21% – 30%
11%	6%	11% – 20%
36%	44%	1% – 10%
11%	44%	0%
7%	--	Don't Know/Refused
32.1	**3.1**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER EMPLOYEE SHUTTLE SERVICES (n=272)]

22B. If you were to offer an employee shuttle service, how likely do you think your employees would be to take advantage of this service?

39%	**Total Likely**
60%	**Total Unlikely**
14%	Very likely
25%	Somewhat likely
26%	Somewhat unlikely
34%	Not at all likely
1%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER RESERVED PARKING FOR CAR AND VANPOOLS ON AN UNAIDED BASIS (n=296)]

23. Does your company currently offer those who carpool or vanpool reserved or preferential parking?

2002	2001	
6%	8%	Yes, currently offer
1%	1%	Plan to offer in the next year
92%	88%	No, do not currently offer
1%	3%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS RESERVED PARKING FOR CAR AND VANPOOLS (n=21)]

23A. Approximately what percentage of your employees currently take advantage of this service?

2002	2001	
14%	4%	91% – 100%
--	4%	81% – 90%
--	--	71% – 80%
--	4%	61% – 70%
5%	--	51% – 60%
10%	7%	41% – 50%
5%	--	31% – 40%
10%	--	21% – 30%
5%	14%	11% – 20%
29%	46%	1% – 10%
19%	21%	0%
5%	--	Don’t Know/Refused
29.6	**16.4**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER RESERVED PARKING FOR CAR AND VANPOOLS (n=273)]

23B. If you were to offer reserved parking spaces or a preferential parking program to employees who participate in carpools or vanpools, how likely do you think your employees would be to take advantage of this service?

41%	**Total Likely**
58%	**Total Unlikely**
15%	Very likely
25%	Somewhat likely
19%	Somewhat unlikely
39%	Not at all likely
1%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER SUBSIDIES TO THOSE WHO CARPOOL ON AN UNAIDED BASIS (n=293)]

24. Does your company currently offer financial incentives to employees who carpool?

2002	**2001**	
2%	2%	Yes, currently offer
2%	2%	Plan to offer in the next year
94%	92%	No, do not currently offer
2%	4%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS SUBSIDIES TO THOSE WHO CARPOOL (n=14)]

24A. Approximately what percentage of your employees currently take advantage of this service?

2002	2001	
7%	--	91% – 100%
--	--	81% – 90%
--	--	71% – 80%
--	--	61% – 70%
--	--	51% – 60%
7%	--	41% – 50%
7%	9%	31% – 40%
14%	9%	21% – 30%
--	18%	11% – 20%
50%	55%	1% – 10%
7%	9%	0%
7%	--	Don't Know/Refused
21.6	**11.5**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER SUBSIDIES FOR THOSE WHO CARPOOL (n=276)]

24B. If you were to offer carpool subsidies or other financial incentives, how likely do you think your employees would be to take advantage of this service?

58%	**Total Likely**
41%	**Total Unlikely**
20%	Very likely
38%	Somewhat likely
19%	Somewhat unlikely
21%	Not at all likely
1%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER SUBSIDIES TO THOSE WHO VANPOOL ON AN UNAIDED BASIS (n=295)]

25. Does your company currently offer financial incentives to employees who vanpool?

2002	2001	
3%	2%	Yes, currently offer
1%	2%	Plan to offer in the next year
95%	92%	No, do not currently offer
1%	4%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS SUBSIDIES TO THOSE WHO VANPOOL (n=13)]

25A. Approximately what percentage of your employees currently take advantage of this service?

2002	2001	
8%	--	91% – 100%
--	--	81% – 90%
--	--	71% – 80%
8%	--	61% – 70%
--	--	51% – 60%
--	--	41% – 50%
--	--	31% – 40%
--	--	21% – 30%
--	--	11% – 20%
62%	63%	1% – 10%
8%	38%	0%
15%	--	Don’t Know/Refused
16.6	**2.9**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER SUBSIDIES FOR THOSE WHO VANPOOL (n=280)]

25B. If you were to offer vanpool subsidies or other financial incentives, how likely do you think your employees would be to take advantage of this service?

44%	**Total Likely**
55%	**Total Unlikely**
11%	Very likely
33%	Somewhat likely
25%	Somewhat unlikely
30%	Not at all likely
1%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER TRANSIT SUBSIDIES ON AN UNAIDED BASIS (n=258)]

26. Does your company currently offer any subsidies to employees who ride transit?

2002	**2001**	
8%	6%	Yes, currently offer
2%	2%	Plan to offer in the next year
90%	90%	No, do not currently offer
**	2%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS TRANSIT SUBSIDIES (n=62)]

26A. Approximately what percentage of your employees currently take advantage of this service?

2002	2001	
--	3%	91% – 100%
--	--	81% – 90%
5%	6%	71% – 80%
3%	--	61% – 70%
3%	3%	51% – 60%
3%	3%	41% – 50%
5%	3%	31% – 40%
19%	18%	21% – 30%
10%	24%	11% – 20%
34%	30%	1% – 10%
5%	9%	0%
13%	--	Don't Know/Refused
22.9	**22.5**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER TRANSIT SUBSIDIES (n=235)]

26B. If you were to offer transit subsidies or other financial incentives to employees who use transit, how likely do you think your employees would be to take advantage of this service?

44%	**Total Likely**
54%	**Total Unlikely**
17%	Very likely
27%	Somewhat likely
20%	Somewhat unlikely
34%	Not at all likely
2%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT OFFER CAR OR VANPOOL MATCHING SERVICES ON AN UNAIDED BASIS (n=292)]

27. Does your company currently offer matching services to employees who are interested in joining a carpool or vanpool?

2002	2001	
4%	3%	Yes, currently offer
1%	--	Yes, refer to an outside matching service
16%	2%	Plan to offer in the next year
77%	92%	No, do not currently offer
2%	4%	Don't know/Refused

[ASKED IF COMPANY CURRENTLY OFFERS CAR OR VANPOOL MATCHING SERVICES (n=23)]

27A. Approximately what percentage of your employees currently take advantage of this service?

2002	2001	
9%	--	91% – 100%
--	--	81% – 90%
--	--	71% – 80%
--	--	61% – 70%
--	--	51% – 60%
9%	5%	41% – 50%
4%	5%	31% – 40%
13%	--	21% – 30%
4%	11%	11% – 20%
39%	58%	1% – 10%
--	21%	0%
22%	--	Don’t Know/Refused
28.0	**8.9**	**Mean**

[ASKED IF COMPANY DOES NOT OFFER CAR OR VANPOOL MATCHING SERVICES (n=225)]

27B. If you were to offer carpool or vanpool matching services, how likely do you think your employees would be to take advantage of this service?

43%	**Total Likely**
56%	**Total Unlikely**
6%	Very likely
37%	Somewhat likely
24%	Somewhat unlikely
32%	Not at all likely
1%	Don't Know/Refused

[ASKED ONLY IF COMPANY SAID THEY DO NOT TAKE ADVANTAGE OF TAX BENEFITS ON AN UNAIDED BASIS (n=297)]

27C. Does your company currently take advantage of **tax benefits** for transportation costs, better known as Commuter Choice, for employees who use alternative modes of transportation?

6%	Yes, currently offer
1%	Plan to offer in the next year
84%	No, do not currently offer
8%	Don't Know/Refused

[ASKED IF COMPANY CURRENTLY TAKES ADAVANTAGE OF TAX BENEFITS FOR TRANSPORTATION COSTS (n=22)]

27D. Approximately what percentage of your employees currently take advantage of **tax benefits** for transportation costs?

--	91% - 100%
5%	81% - 90%
--	71% - 80%
5%	61% - 70%
--	51% - 60%
9%	41% - 50%
--	31% - 40%
18%	21% - 30%
14%	11% - 20%
27%	1% - 10%
9%	0%
14%	Don't Know/Refused

24.2 Mean

[ASKED IF COMPANY DOES NOT OFFER TAX BENEFITS FOR TRANSPORTATION COSTS (n=250)]

27E. If you were to offer **tax benefits** for transportation costs, how likely do you think your employees would be to take advantage of this service?

48%	**Total Likely**
48%	**Total Unlikely**
11%	Very likely
37%	Somewhat likely
22%	Somewhat unlikely
27%	Not at all likely
4%	Don't Know/Refused

SUMMARY TABLE OF CURRENTLY OFFER

60%	Flexible arrival and departure schedules
32%	Compressed or alternative work weeks
27%	Teleworking opportunities
19%	Free or guaranteed rides home
8%	Subsidies or discount passes for employees who ride transit
7%	Shuttle services
6%	Reserved parking spaces for carpools and vanpools
6%	Tax benefits for transportation costs
5%	Carpool or vanpool matching services
3%	Subsidies for employees who vanpool
2%	Subsidies for employees who carpool

SUMMARY TABLE OF PLAN TO OFFER

16%	Carpool or vanpool matching services
3%	Compressed or alternative work weeks
3%	Teleworking opportunities
2%	Subsidies or discount passes for employees who ride transit
2%	Subsidies for employees who carpool
1%	Flexible arrival and departure schedules
1%	Reserved parking spaces for carpools and vanpools
1%	Tax benefits for transportation costs
1%	Subsidies for employees who vanpool
**	Free or guaranteed rides home
--	Shuttle services

SUMMARY TABLE OF DON'T CURRENTLY OFFER

95%	Subsidies for employees who vanpool
94%	Subsidies for employees who carpool
92%	Shuttle services
92%	Reserved parking spaces for carpools and vanpools
90%	Subsidies or discount passes for employees who ride transit
84%	Tax benefits for transportation costs
80%	Free or guaranteed rides home
77%	Carpool or vanpool matching services
69%	Teleworking opportunities
65%	Compressed or alternative work weeks
38%	Flexible arrival and departure schedules

[ASKED IF COMPANY IS CURRENTLY OFFERING ANY OF THE SERVICES LISTED IN QUESTIONS 18-27 (n=232)]

28. Thinking about the programs and services we have just discussed, did you receive any assistance or help from any organization in setting up these programs?

2002	2001	
15%	11%	Yes
84%	82%	No
**	7%	Don't know/Don't Remember/Refused

[ASKED IF COMPANY RECEIVED ASSISTANCE FROM ANOTHER ORGANIZATION TO SET UP PROGRAM(S) (n=35)]

28A. What was the name of the organization or organizations who helped you set up programs for your company?

2002	2001	
26%	41%	Clean Air Campaign
11%	5%	Commute Connections
14%	**18%**	**TMA (NET)**
6%	5%	BATMA
3%	5%	Midtown Alliance
3%	5%	Perimeter Transportation Coalition
3%	--	Central Atlanta Progress/Downtown TMA
6%	18%	MARTA
3%	14%	Georgia State Programs
51%	14%	Other
6%	--	Don't Know/Refused

[ASKED IF COMPANY RECEIVED ASSISTANCE FROM ANOTHER ORGANIZATION TO SET UP PROGRAM(S) (n=35)]

28B. What did this organization do to help you or your company?

2002	2001	
17%	32%	Helped establish a ride (carpool or vanpool) matching system
17%	9%	Helped establish vanpool program(s)
17%	9%	Held teleworking seminars and program development
14%	--	Sponsored award programs and incentives for participation in commute alternatives
11%	5%	Provided posters, brochures or outreach materials
9%	9%	Helped develop customized financial incentive programs
6%	--	Held alternative work schedule training and program development
6%	9%	Provided bus and rail transit information, including routes and schedules
6%	5%	Held staff meetings, orientations, seminars, lunch and learn programs, etc.
6%	23%	Transit discount sales
3%	9%	Provided marketing materials
29%	9%	Other
6%	5%	Don't Know/Refused

AWARENESS OF CLEAN AIR CAMPAIGN

29. Have you heard of The Clean Air Campaign?

2002	2001	
89%	89%	Yes, heard of
11%	10%	No, have not heard of
--	**	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF THE CLEAN AIR CAMPAIGN (n=268)]

29A. Have you or has someone in your organization been contacted by The Clean Air Campaign?

2002	2001	
25%	15%	Yes, contacted
69%	70%	No
6%	15%	Don't know/Refused

[ASKED IF THEY HAVE BEEN CONTACTED BY THE CLEAN AIR CAMPAIGN (n=67)]

29B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with the Clean Air Campaign and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with the Clean Air Campaign?

2002	2001	
45%	**54%**	**Top 3 Boxes (8 - 10)**
22%	20%	(10) Completely Satisfied
7%	20%	9
15%	15%	8
16%	12%	7
10%	2%	6
18%	20%	5
--	--	4
--	2%	3
1%	--	2
--	10%	(1) Not At All Satisfied
1%	**12%**	**Bottom 3 Boxes (1 - 3)**
9%	--	Don't Know/Refused
7.5	**7.0**	**Mean**

AWARENESS/PARTICIPATION IN SPECIFIC PROGRAMS & SERVICES

Now, I'm going to read you a list of programs and services available here in the Atlanta area to help commuters. As I read each one, please tell me if you have heard of the program or service or not.

30. Have you heard of the toll-free number: "1-87-RIDEFIND" to call for carpool or vanpool matching services?

2002	2001	
78%	67%	Yes, heard of
22%	33%	No, have not heard of
**	1%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF "1-87-RIDEFIND" (n=233)]

30A. Have you or has anyone from your organization called 1-87-RIDEFIND to get help with carpool and vanpool matching services?

2002	2001	
12%	6%	Yes, called/contacted
82%	79%	No, have not called/been contacted
6%	14%	Don't know/Refused

---

31 Have you heard of the toll-free number: "1-877-CLEANAIR" or cleanaircampaign.com to call or visit to get more information about commuting services?

2002	2001	
66%	30%	Yes, heard of
34%	69%	No, have not heard of
--	1%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF "1-877-CLEANAIR" OR WEBSITE (n=198)]

31A. Have you or has anyone from your organization called 1-877-CLEANAIR or visited cleanaircampaign.com to get more information about commuting services?

16%	Yes
78%	No
6%	Don't Know/Refused

---

32. Have you heard of the Regional Guaranteed Ride Home Program that is managed by Commute Connections?

2002	2001	
11%	7%	Yes, heard of
88%	92%	No, have not heard of
**	1%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF THE REGIONAL GUARNATEED RIDE HOME PROGRAM (n=34)]

32A. Is your organization currently participating in the Guaranteed Ride Home program?

2002	2001	
47%	45%	Yes, currently participating
3%	5%	Would/are considering participation
50%	45%	No, not participating
--	5%	Don't know/Refused

---

33. Have you heard of the MARTA Partnership Program?

2002	2001	
44%	23%	Yes, heard of
55%	75%	No, have not heard of
1%	2%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF THE MARTA PARTNERSHIP PROGRAM (n=131)]

33A. Is your organization currently participating in the MARTA Partnership Program?

2002	2001	
21%	11%	Yes, currently participating
6%	10%	Would/are considering participation
72%	75%	No, not participating
2%	4%	Don't know/Refused

---

34. Have you heard of Douglas County Rideshare?

2002	2001	
20%	14%	Yes, heard of
80%	84%	No, have not heard of
--	2%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF DOUGLAS COUNTY RIDESHARE (n=60)]

34A. Is your organization currently participating in Douglas County Rideshare?

2002	2001	
15%	5%	Yes, currently participating
3%	5%	Would/are considering participation
80%	71%	No, not participating
2%	19%	Don't know/Refused

---

35. Have you heard of Metro Vanpool?

2002	2001	
39%	26%	Yes, heard of
61%	72%	No, have not heard of
--	1%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF METRO VANPOOL (n=117)]

35A. Is your organization currently participating in Metro Vanpool?

2002	2001	
7%	3%	Yes, currently participating
6%	5%	Would/are considering participation
83%	88%	No, not participating
4%	5%	Don't know/Refused

[ASKED OF GOVERNMENT EMPLOYEES (n=41)]

36. Have you heard of the Georgia Building Authority Vanpool?

44%	Yes
56%	No

[ASKED IF THEY HAVE HEARD OF THE GEORGIA BUILDING AUTHORITY VANPOOL (n=18)]

36A. Is your organization currently participating in the Georgia Building Authority Vanpool?

39%	Yes, currently participating
--	Are considering participation
61%	No, not participating

---

37. Have you heard about the "Commuter Choice" federal tax program that provides employees or companies tax benefits for using transportation alternatives?

2002	2001	
25%	9%	Yes, heard of
75%	89%	No, have not heard of
--	1%	Don't know/Refused

[ASKED IF THEY HAVE HEARD ABOUT "COMMUTER CHOICE" FEDERAL TAX BENEFITS (n=74)]

37A. Is your organization currently taking advantage of the "Commuter Choice" federal tax benefit program?

2002	2001	
20%	32%	Yes, currently participating
5%	7%	Would/are considering participation
72%	50%	No, not participating
3%	11%	Don't know/Refused

Now, I am going to read you the names of several local organizations. For each organization, please tell me if you have heard of the organization.

[ASKED ONLY OF RESPONDENTS WORK IN THE BUCKHEAD REGION (n=33)]

38. Have you heard of the Buckhead Area Transportation Management Association or TMA, sometimes called "BATMA"?

2002	2001	
45%	20%	Yes, heard of
52%	76%	No, have not heard of
3%	4%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF BUCKHEAD AREA TRANSPORTATION MANAGEMENT ASSOCIATION (TMA) (n=15)]

38A. Have you or someone in your organization contacted or been contacted by the Buckhead Area Transportation Management Association or TMA?

2002	2001	
60%	20%	Yes, contacted
40%	80%	No

[ASKED IF THEY HAVE BEEN CONTACTED BY BUCKHEAD AREA TRANSPORTATION MANAGEMENT ASSOCIATION (n=9)]

38B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with the Buckhead Area Transportation Management Association and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with the Buckhead Area TMA?

2002	2001	
67%	**100%**	**Top 3 Boxes (8 - 10)**
22%	100%	(10) Completely Satisfied
11%	--	-9
33%	--	-8
--	--	-7
--	--	-6
--	--	-5
11%	--	-4
--	--	-3
--	--	-2
--	--	(1) Not At All Satisfied
--	--	**Bottom 3 Boxes (1 - 3)**
22%	--	Don't Know/Refused
8.1	**10.0**	**Mean**

[ASKED ONLY OF RESPONDENTS WORK IN THE DECATUR REGION (n=17)]

39. Have you heard of the Clifton Corridor Transportation Management Association or TMA?

2002	2001	
24%	--	Yes, heard of
76%	100%	No, have not heard of

[ASKED IF THEY HAVE HEARD OF CLIFTON CORRIDOR TRANSPORTATION MANAGEMENT ASSOCIATION (TMA) (n=4)]

39A. Have you or someone in your organization contacted or been contacted by the Clifton Corridor Transportation Management Association or TMA?

2002	2001	
50%	--	Yes
50%	100%	No

[ASKED IF THEY HAVE BEEN CONTACTED BY CLIFTON CORRIDOR TRANSPORTATION MANAGEMENT ASSOCIATION (n=2)]

39B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with the Clifton Corridor Transportation Management Association and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with the Clifton Corridor TMA?

100%	Top 3 Box (8-10)
50%	-10
--	-9
50%	-8
--	-7
--	-6
--	-5
--	-4
--	-3
--	-2
--	-1
--	**Bottom 3 Box (1-3)**
9.0	**Mean**

[ASKED ONLY OF RESPONDENTS WORK IN OTHER COBB COUNTY LOCATIONS (n=13)]

40. Have you heard of CobbRides?

2002	2001	
23%	26%	Yes, contacted
69%	74%	No
8%	--	Don't Know/Refused

[ASKED IF THEY HAVE HEARD OF COBB RIDES (n=3)]

40A. Have you or someone in your organization contacted or been contacted by CobbRides?

2002	2001	
33%	40%	Yes, contacted
67%	60%	No

[ASKED IF THEY HAVE BEEN CONTACTED BY COBB RIDES (n=1)]

40B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with CobbRides and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with Cobb Rides?

2002	2001	
--	**50%**	**Top 3 Boxes (8 - 10)**
--	50%	(10) Completely Satisfied
--	--	9
--	--	8
100%	--	7
--	--	6
--	--	5
--	--	4
--	--	3
--	--	2
--	50%	(1) Not At All Satisfied
--	**50%**	**Bottom 3 Boxes (1 - 3)**
7.0	**5.5**	**Mean**

[ASKED ONLY OF RESPONDENTS WORK IN THE CUMBERLAND REGION (n=39)]

41. Have you heard of the Commuter Club or the Cumberland Transportation Network?

2002	2001	
10%	29%	Yes, heard of
82%	71%	No, have not heard of
8%	--	Don't Know/Refused

[ASKED IF THEY HAVE HEARD OF THE CUMBERLAND TRANSPORTATION NETWORK (n=4)]

41A. Have you or someone in your organization contacted or been contacted by the Commuter Club or the Cumberland Transportation Network?

2002	2001	
50%	22%	Yes, contacted
50%	67%	No
--	11%	Don't know/Refused

[ASKED IF THEY HAVE BEEN CONTACTED BY THE CUMBERLAND TRANSPORTATION NETWORK (n=2)]

41B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with the Commuter Club or the Cumberland Transportation Network and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with the Commuter Club or Cumberland Transportation Network?

2002	2001	
--	**100%**	**Top 3 Boxes (8 - 10)**
--	--	(10) Completely Satisfied
--	--	9
--	100%	8
50%	--	7
--	--	6
--	--	5
--	--	4
--	--	3
--	--	2
--	--	(1) Not At All Satisfied
--	--	**Bottom 3 Boxes (1 - 3)**
50%	--	Don't Know/Refused
7.0	**8.0**	**Mean**

[ASKED ONLY OF RESPONDENTS WORK IN THE ARIPORT REGION (n=24)]

42. Have you heard of the Hartsfield Area Transportation Management Association or TMA, sometimes called "HATMA"?

2002	2001	
29%	13%	Yes, heard of
63%	78%	No, have not heard of
8%	9%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF THE HARTSFIELD AREA TRANSPORTATION MANAGEMENT ASSOCIATION OR TMA (n=7)]

42A. Have you or someone in your organization contacted or been contacted by the Hartsfield Area Transportation Management Association or TMA?

2002	2001	
43%	--	Yes, contacted
57%	100%	No

[ASKED IF THEY HAVE BEEN CONTACTED BY THE HARTSFIELD AREA TRANSPORTATION MANAGEMENT ASSOCIATION (n=3)]

42B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with the Hartsfield Area Transportation Management Association and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with the Hartsfield Area TMA?

33%	**Top 3 Boxes (8 - 10)**
33%	(10) Completely Satisfied
--	9
--	8
33%	7
33%	6
--	5
--	4
--	3
--	2
--	(1) Not At All Satisfied
--	**Bottom 3 Boxes (1 - 3)**
7.7	**Mean**

[ASKED ONLY OF RESPONDENTS WORK IN THE MIDTOWN REGION (n=24)]

43. Have you heard of Midtown Transportation Solutions, a program of Midtown Alliance?

2002	2001	
50%	22%	Yes, heard of
50%	78%	No, have not heard of

[ASKED IF THEY HAVE HEARD OF MIDTOWN TRANSPORTATION SOLUTIONS (n=12)]

43A. Have you or someone in your organization contacted or been contacted by Midtown Transportation Solutions?

2002	2001	
67%	50%	Yes, contacted
33%	50%	No

[ASKED IF THEY HAVE BEEN CONTACTED BY MIDTOWN TRANSPORTATION SOLUTIONS (n=8)]

43B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with Midtown Transportation Solutions and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with Midtown Transportation Solutions?

2002	2001	
63%	**100%**	**Top 3 Boxes (8 - 10)**
25%	100%	(10) Completely Satisfied
25%	--	9
13%	--	8
--	--	7
--	--	6
13%	--	5
--	--	4
--	--	3
--	--	2
--	--	(1) Not At All Satisfied
--	--	**Bottom 3 Boxes (1 - 3)**
25%	--	Don't Know/Refused
8.5	**10.0**	**Mean**

[ASKED ONLY OF RESPONDENTS WORK IN THE PERIMETER REGION (n=15)]

44. Have you heard of the Perimeter Transportation Coalition?

2002	2001	
20%	21%	Yes, heard of
80%	79%	No, have not heard of

[ASKED IF THEY HAVE HEARD OF THE PERIMETER TRANSPORTATION COALITION (n=3)]

44A. Have you or someone in your organization contacted or been contacted by the Perimeter Transportation Coalition?

2002	2001	
33%	67%	Yes, contacted
67%	33%	No

[ASKED IF THEY HAVE BEEN CONTACTED BY THE PERIMETER TRANSPORTATION COALITION (n=1)]

44B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with the Perimeter Transportation Coalition and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with the Perimeter Transportation Coalition?

2002	2001	
100%	**75%**	**Top 3 Boxes (8 - 10)**
--	50%	(10) Completely Satisfied
100%	--	9
--	25%	8
--	--	7
--	25%	6
--	--	5
--	--	4
--	--	3
--	--	2
--	--	(1) Not At All Satisfied
--	**--**	**Bottom 3 Boxes (1 - 3)**
9.0	**8.5**	**Mean**

[ASKED ONLY OF RESPONDENTS WORK IN THE DOWNTOWN REGION (n=41)]

45. Have you heard of the Downtown area Transportation Management Association or TMA, a program of Central Atlanta Progress?

2002	2001	
41%	22%	Yes, heard of
56%	75%	No, have not heard of
2%	3%	Don't know/Refused

[ASKED IF THEY HAVE HEARD OF CENTRAL ATLANTA PROGRESS IN THE DOWNTOWN AREA (n=17)]

45A. Have you or someone in your organization contacted or been contacted by the Downtown area Transportation Management Association or TMA?

2002	2001	
35%	14%	Yes, contacted
59%	71%	No
6%	14%	Don't know/Refused

[ASKED IF THEY HAVE BEEN CONTACTED BY CENTRAL ATLANTA PROGRESS IN THE DOWNTOWN AREA (n=6)]

45B. Using a scale from 1 to 10, where a rating of "1" means that you are "not at all satisfied" with your experience with Downtown area TMA and the information they have provided you, and a rating of "10" means that you are "completely satisfied" with your experience with them and the information they have provided you, how would you rate your level of satisfaction with Downtown area TMA?

2002	**2001**	
50%	**100%**	**Top 3 Boxes (8 - 10)**
17%	--	(10) Completely Satisfied
33%	--	-9
--	100%	-8
--	--	-7
17%	--	-6
17%	--	-5
--	--	-4
--	--	-3
--	--	-2
--	--	(1) Not At All Satisfied
--	--	**Bottom 3 Boxes (1 - 3)**
17%	--	Don't Know/Refused
7.8	**8.0**	**Mean**

SUMMARY TABLE OF HEARD OF

78%	Toll-free number: 1-87-RIDEFIND
66%	Toll-free number: 1-877-CLEANAIR or cleanaircampaign.com"
50%	Midtown Transportation Solutions
45%	Buckhead Area Transportation Management Association (BATMA)
44%	MARTA Partnership Program
44%	Georgia Authority Vanpool
41%	Downtown area Transportation Management Association
39%	Metro Vanpool
29%	Hartsfield Area Transportation Management Association
25%	“Commuter Choice" federal tax program
24%	Clifton Corridor Transportation Management Association
23%	CobbRides
20%	Douglas County Rideshare
20%	Perimeter Transportation Coalition
11%	Regional Guaranteed Ride Home Program
10%	Commuter Club or the Cumberland Transportation Network

SUMMARY TABLE OF HAVEN’T HEARD OF

88%	Regional Guaranteed Ride Home Program
82%	Commuter Club or the Cumberland Transportation Network
80%	Douglas County Rideshare
80%	Perimeter Transportation Coalition
76%	Clifton Corridor Transportation Management Association
75%	Commuter Choice federal tax program
69%	CobbRides
63%	Hartsfield Area Transportation Management Association
61%	Metro Vanpool
56%	Downtown area Transportation Management Association
56%	Georgia Authority Vanpool
55%	MARTA Partnership Program
52%	Buckhead Area Transportation Management Association (BATMA)
50%	Midtown Transportation Solutions
34%	Toll-free number: 1-877-CLEANAIR or cleanaircampaign.com
22%	Toll-free number: 1-87-RIDEFIND

[ASKED IF COMPANY DOES NOT CURRENTLY OFFER ANY COMMUTE OPTION PROGRAMS FOR THEIR EMPLOYEES (n=55)]

46. What is the primary reason your organization has not implemented a commute option program for your employees? What is the biggest barrier keeping you from implementing a commute option program?

2002	2001	
51%	**49%**	**Employees (NET)**
16%	14%	Live close by
15%	18%	Employees are spread all over
11%	7%	Lack of interest
5%	11%	Have own transportation
4%	13%	Work different hours
18%	**33%**	**Doesn't Fit Our Business (NET)**
5%	18%	Nature of business
5%	3%	Not beneficial
4%	15%	No need
2%	3%	Small company
2%	2%	Doesn't apply to us
7%	**22%**	**Availability/Accessibility (NET)**
2%	14%	Lack of availability/accessibility
2%	10%	Location
2%	4%	Transportation come right by our company
2%	1%	Hours of operation
7%	**13%**	**Financial (NET)**
7%	6%	Cost
4%	**11%**	**Administrative Issues (NET)**
2%	4%	Scheduling
2%	3%	Hassle for management
2%	**5%**	**Information (NET)**
2%	1%	Unaware of programs
11%	**29%**	**Other (NET)**
4%	7%	We haven't considered it
2%	1%	Not a priority
5%	14%	Other
2%	29%	Don't Know/Refused

[ASKED IF THEY HAVE IMPLEMENTED A COMMUTER PROGRAM (n=245)]

47. Why do you offer commuter information or assistance programs?

27%	Offer employee benefit/improve employee morale
23%	We don't
9%	Ease traffic around or at the worksite
9%	Help environment
5%	Retain employees/reduce turnover
4%	Reduce absenteeism
4%	Increase worker productivity
4%	Get employees to work
3%	Be a good neighbor
2%	Comply with legal requirement/regulation
2%	Accommodate schedules
2%	Solve a parking problem/not enough parking at or near worksite
1%	Attract/recruit new employees
1%	Reduce operating cost
1%	Retain employees during relocation/worksite consolidation
1%	Enhance customer service
1%	Free up parking for visitors/customers
12%	Other
3%	Don't Know/Refused

47A. What is the one thing that could help your company expand on or improve upon your current commute option programs?

2002	2001	
18%	**34%**	**Services/Programs (NET)**
5%	13%	Expand services
5%	3%	Offer bus service
4%	**	Offer carpooling services
4%	4%	Flexible scheduling
5%	**11%**	**Not Needed (NET)**
2%	**	Employees drive to work
1%	**	No interest
1%	4%	Don't need/Have own transportation
1%	5%	Would not be beneficial to employees
**	1%	Company too small
39%	**42%**	**Other (NET)**
12%	--	Send brochures/Information
5%	9%	Improve traffic conditions
3%	4%	Employee discounts
3%	2%	Telecommuting
3%	--	Improved public transportation
2%	--	Public funding/More money
1%	**	Relocate office
9%	1%	Other
19%	27%	Nothing
19%	16%	Don't Know/Refused

47B. Approximately how far is the nearest MARTA train station from your worksite?

46%	Five miles or more
23%	Less than one quarter of a mile
13%	Two miles but less than five miles
7%	One mile but less than two miles
6%	One quarter mile to less than half a mile
4%	Half a mile but less than one mile
1%	Don't Know/Refused

47C. Approximately how far is the nearest MARTA Bus, CCT Bus, Gwinnett Bus, or C-TRAN Bus Stop from your worksite?

55%	Less than one quarter of a mile
14%	Five miles or more
11%	One quarter mile to less than half a mile
7%	Two miles but less than five miles
6%	Half a mile but less than one mile
5%	One mile but less than two miles
2%	Don't Know/Refused

---

48. I'd like to thank you for participating in this survey. Would you like to receive a copy of the results of this survey to see how your company compares with other companies in the Atlanta area?

59%	Yes
41%	No

48A. Would you like to receive more information about some of the specific commute programs and services mentioned in this survey?

55%	Yes
45%	No

APPENDIX B-6 – NOVEMBER 2002 VANPOOL RIDER SURVEY FINAL REPORT

EVALUATION OF THE EFFECTIVENESS OF PROGRAMS CONTAINED IN THE "FRAMEWORK FOR COOPERATION TO REDUCE TRAFFIC CONGESTION AND IMPROVE AIR QUALITY"

PHASE THREE

NOVEMBER 2002 VANPOOL RIDER SURVEY FINAL REPORT

PREPARED FOR:
GEORGIA DEPARTMENT OF TRANSPORTATION

PREPARED BY:
CENTER FOR TRANSPORTATION AND THE ENVIRONMENT

IN ASSOCIATION WITH

LDA CONSULTING
AND
CIC RESEARCH, INC.

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EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of a survey of vanpool riders in the Atlanta 13-county non-attainment area[1] who participate in established vanpool programs. The survey, conducted in November 2002, collected data in order to calculate the travel and air quality emission reductions from vanpool riders during federal fiscal year (FY) 2002. They survey also collected data to examine other key characteristics of vanpool riders, including the role discounts play in a their decision to vanpool.

The survey is one of several surveys being conducted as part of a broad research and measurement program sponsored by the Georgia Department of Transportation (GDOT) known as the "Evaluation of the Effectiveness of Programs contained in the Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality." The research and measurement program evaluates the effectiveness of programs aimed at changing individual and employer behavior about the voluntary use of alternative transportation to help reduce traffic congestion and improve air quality in the metropolitan Atlanta region. The programs, dubbed the Atlanta TDM Framework, are implemented by organizations such as The Clean Air Campaign, Transportation Management Associations, and the Atlanta Regional Commission.

PROGRAM TRAVEL AND EMISSION REDUCTIONS

The estimated number of vanpool riders in the Atlanta region at the close of FY2002 was 1,864. The travel and air quality emissions reductions achieved by these vanpool riders are presented in Table A.

TABLE A: VANPOOL RIDER PROGRAM TRAVEL AND EMISSION REDUCTIONS

Travel and Emission Reductions	FY2002 Results
Placement Rates	**100.0%**
- New vanpool placement rate	27.1%
- Retained vanpool placement rate	72.9%
Commuter Placements	**1,864**
- New vanpool placements	505
- Retained vanpool placements	1,359
Daily Vehicle Trips Reduced	**2,218**
- New vanpool placements	601
- Retained vanpool placements	1,617
Daily VMT Reduced	**78,011**
- New vanpool placements	21,141
- Retained vanpool placements	56,870
Daily Emissions Reduced	**0.1803**
- NO_x (tons)	0.0835
- VOC (tons)	0.0968

[1] Thirteen (13) county non-attainment area includes Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale counties.

Commuter Placement Rates and Placements

Based on data from vendor records, an estimated 1,864 individuals commute to and from work by vanpool. The new placement rate shown in Table A reflects those commuters who started vanpooling during the FY2002 evaluation period. The retained placement rate reflects commuters who started vanpooling more than one year prior to the evaluation period.

Vehicle Trips and VMT Reduced

Vehicle trip reduction measures the number of vehicle trips no longer made as a result of commuters shifting to alternative modes. An examination of the travel behavior reported by survey respondents yields a vehicle trip reduction (VTR) factor of 1.19 daily one-way vehicle trips reduced per placement

This factor, when multiplied by the number of placements in vanpools, equals a total daily vehicle trip reduction of 2,218 trips. Multiplying the number of vehicle trips reduced by the average commute distance for the respondents who vanpool results in a total daily vehicle miles traveled (VMT) reduction of 78,011 miles.

Emissions Reduced

Emissions benefits, defined as tons of pollutants reduced, are calculated by multiplying regional emission factors provided by the Georgia Department of Natural Resources, Georgia Environmental Protection Division by the amount of VMT reduced. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of oxides of Nitrogen (NO_x) and Volatile Organic Compounds (VOC) is of particular concern in the region as these pollutants are the primary components in the formation of ozone. The emissions reduced equal:

- NO_x 0.0835 tons per day reduced
- VOC 0.0968 tons per day reduced

} 0.1803 tons pollutants per day reduced

KEY SURVEY RESULTS

- Vanpooling is the most prevalent commute mode (3+ days/week) of among survey respondents (85.8%), followed by driving alone in a car or on a motorcycle (4.4%).
- Respondents travel an average of 35.2 miles from their home to their work location. This trip takes an average of 49.2 minutes.
- The majority of respondents (83.2%) drive alone to meet their vanpool and travel an average of 6.6 miles to meet their vanpool.
- The average length of time respondents have been commuting by vanpool is 44 months, or almost four years.
- The average vanpool is made up of 9.5 persons.
- Prior to vanpooling, almost two-thirds (63.4%) of respondents usually drove alone to work five days per week.
- Approximately seven in ten survey respondents (69.8%) indicate their employer provides financial assistance for all or part of their vanpool expenses. These respondents have benefited from this assistance for a median time span of 1.6 years.
- The overall majority (71.6%) of respondents receiving financial assistance rate the receipt of such assistance as “very important” in their decision to start or to continue vanpooling.
- An overwhelming majority of respondents receiving financial assistance (83.9%) did not vanpool prior to receiving this assistance.
- Should vanpooling not be available, the highest proportion of respondents indicate they would drive alone to work five days per week (56.7%) followed by those who would carpool five days per week (19.4%).

CONCLUSIONS

Vanpooling is the only commute alternative the majority of vanpool rider survey respondents would use. Almost six in ten replied they would drive alone to work five days a week if vanpooling was not available. Two in ten said they would carpool and fewer than one in ten would use some form of transit.

The vanpoolers surveyed show a strong commitment to vanpooling as a commute option. Three-fourths of these commuters vanpool four days or more a week and nearly half of the respondents commute by vanpool five days a week. By vanpooling, the respondents reduce 2,218 trips daily. The respondents also are long-time users of the mode. On average they began vanpooling nearly four years ago.

The VMT reduction in the Atlanta region as a result of vanpool activity is particularly significant due to the lengths of the vanpoolers' commutes. On average, the one-way commute distance is 35.2 miles with nearly two in ten commuting 46 miles or more one-way. These VMT reductions result in correspondingly significant emissions reductions as a result of vanpooling activity in the region. Financial incentives are an important component in prompting commuters to vanpool. Almost seven in ten reported their employer or other organization provides financial assistance for all or part of their vanpool expenses. Of these respondents, nearly three-fourths stated receipt of the financial assistance is "very important" to their decision to start or continue vanpooling. The overwhelming majority of these commuters did not vanpool prior to receiving the incentive.

RECOMMENDATIONS

The results from the survey clearly show the substantial contributions vanpoolers make in travel and air quality emission reductions. Additional survey questions about the role incentives play in a commuter's choice to start or continue vanpooling also show a positive correlation between the availability of incentives and the choice to vanpool. These findings suggest at least two actions the Atlanta TDM Framework could take to maintain and even improve vanpooling alternatives in the region:

- *Continue to support new vanpool formation and maintenance of existing vanpools.*
- *Continue to support financial assistance for vanpool drivers and riders.*

SECTION 1 OVERVIEW

PURPOSE OF THE REPORT

The purpose of the vanpool rider survey was to collect data necessary to calculate the travel and air quality emission reductions achieved by vanpool riders participating in established vanpool programs in the 13 county non-attainment region. The survey also collected data to examine other key characteristics of vanpool riders, including the role incentives or subsidies play in a their decision to vanpool.

The survey is part of a broad research and measurement program sponsored by the Georgia Department of Transportation (GDOT) known as the "Evaluation of the Effectiveness of Programs contained in the Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality." The research and measurement program evaluates the effectiveness of programs aimed at changing individual and employer behavior about the voluntary use of alternative transportation to help reduce traffic congestion and improve air quality in the metropolitan Atlanta region. The programs are referred to as the Atlanta TDM Framework and include organizations such as The Clean Air Campaign, Transportation Management Associations, and the Atlanta Regional Commission.

ORGANIZATION OF REPORT

The report is divided into five sections.

Section 1 – Purpose and organization of the report
Section 2 – Description of the survey and sampling methodology
Section 3 – Results of the survey
Section 4 – Travel and emission reductions
Section 5 - Conclusions and recommendations

The report also includes appendices with the final survey instrument and the detailed impact calculation spreadsheets.

SECTION 2 DATA COLLECTION

This section briefly describes the vanpool rider survey methodology.

QUESTIONNAIRE DEVELOPMENT

The measurement team developed the survey questionnaire with input from partners of the Atlanta TDM Framework. The survey was designed for self-administration and included cover letters for both vanpool drivers and riders. The letters explained the purpose of the survey and instructed respondents on the options for returning completed surveys.

SAMPLE PREPARATION

The sample included vanpool riders from three Atlanta vendors: Douglas County Rideshare (22 vans), Georgia Building Authority (GBA - 43 vans), and MetroVanPool (VPSI - 125 vans). Approximately 1,864 riders received surveys. Douglas County Rideshare and GBA provided data on the actual number of riders, however MetroVanPool was not tracking this information at the time of the survey. Two organizations providing vanpools through MetroVanPool provided actual ridership numbers, accounting for 90 of the 125 vans. For the remaining MetroVanPool vans, the measurement team used the average number of riders to determine the ridership.

SURVEY PRE-TEST

One MetroVanPool van participated in the survey pre-test. Riders completed the survey on October 15, 2002. As a result of the review of the 10 completed surveys, the measurement team made one minor change to the survey prior to final distribution.

SURVEY DISTRIBUTION AND COLLECTION

With assistance from the vendors, the measurement team distributed survey packages to vanpool drivers. The packages included a letter to the vanpool driver asking for assistance with the distribution of the surveys to their riders. The packages also contained an envelope for each rider in the vanpool. These envelopes included a cover letter to each vanpool rider explaining the survey, and a postage-paid reply envelope. Respondents had the option of returning completed surveys to their vanpool driver or returning completed surveys individually.

GBA and Douglas County Rideshare vanpool drivers received survey packages the week of November 11, 2002. MetroVanPool drivers received their packages through the mail a few days later. A total of 818 of the estimated 1,864 vanpool riders returned completed surveys, a 44% response rate. The margin of error for the survey is +/- 2.6 percentage points for 95 out of 100 cases.

SECTION 3 SURVEY RESULTS

INTRODUCTION

As mentioned previously, the survey includes commuters who vanpool to and from work via a Douglas County Rideshare, GBA or MetroVanPool vanpool. The survey collected the following data from each survey respondent:

- Current commute mode
- Commute characteristics (commute distance and travel time, vanpool occupancy, vanpool access meeting point, mode of travel to access meeting point, and distance to access meeting point)
- Role of financial assistance
- Commute mode if did not vanpool

Survey results presented in the tables below show respondent percentages. Most tables also show the raw number of respondents (e.g., n=818). The margin of error for the questions answered by the full sample of recipients who returned the survey (818) is +/- 2.6% in 95 out of 100 cases.

The measurement team used the current and previous commute modes identified by survey respondents to calculate estimated travel and air quality emissions reductions. The travel and air quality emissions reductions are presented in Section 4.

CURRENT COMMUTE MODE

The survey asked respondents how they had traveled to work Monday through Friday of the previous week.

Current Mode Split by Frequency of Use

The survey asked respondents what modes they used to travel to work each day (Monday-Friday) of the survey week. Figure 1 shows percentages of respondents who drove alone, carpooled, vanpooled, used a bus or train, and biked/walked, based on the frequency of use.

The top bar of each mode group shows the percentage of respondents who used a mode as their "primary" or "regular" mode, that is they used the mode three or more times per week. As shown, the most common primary mode was vanpool, used by 85.8% of respondents. The second most popular mode, used by 4.4% of respondents, was drive alone and almost 2% (1.7%) carpooled. Telework and riding the bus were each reported by less than 1% of the respondents. No respondents reported taking the train, biking/walking or working a compressed work week three or more time per week.

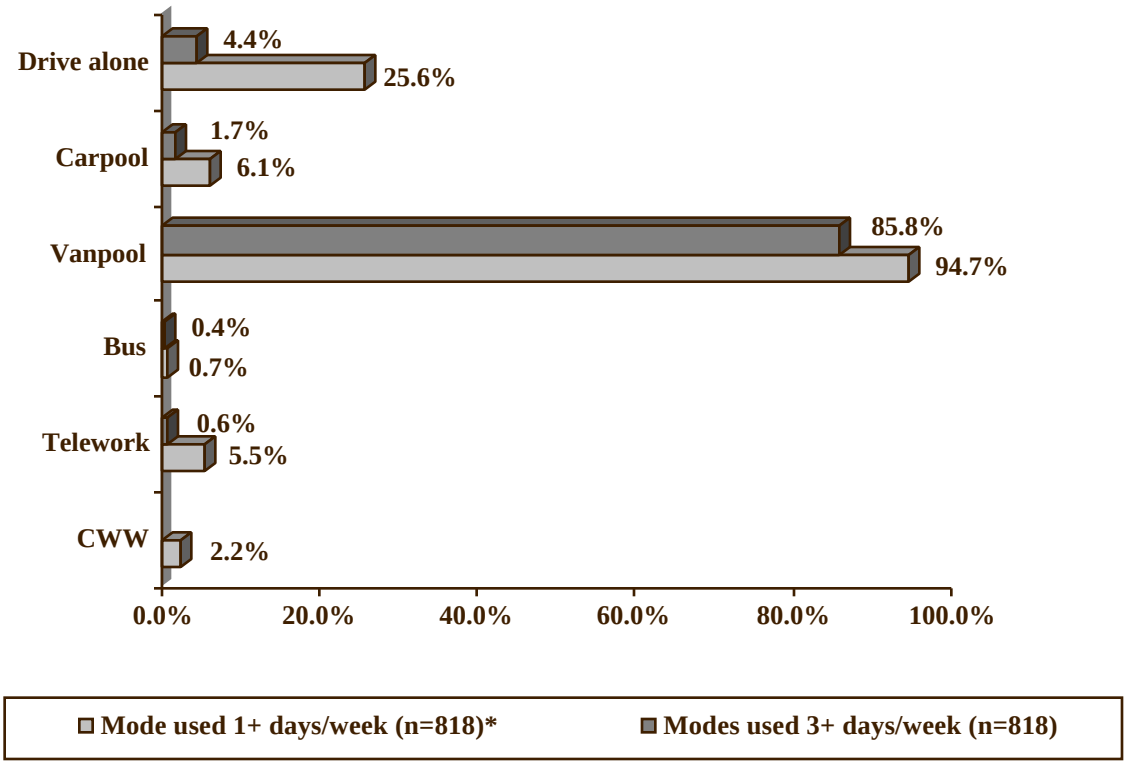
The bottom bar of each mode group shows the percentage of respondents who used the mode at least one day during the survey week. This category also includes respondents who said they used these modes two, three, four or five times during the week. In this case, the percentages of participants using each mode increased, because some respondents who were counted in the three or more days per week category used a secondary mode in addition to their primary mode.

Vanpool was still the most popular mode at 94.7%[2]. Drive alone was still the second most popular mode, used by 25.6%. About 6.1% of respondents carpooled and 5.5% teleworked. Slightly more

[2] The survey asked respondents about their travel each work day in the prior week to completing the survey. Options included "Did not work (sick, vacation, holiday, regular day off)" and "Other". Vanpool riders on vacation,

than 2% (2.2%) worked a compressed work week and less than 1% (0.7%) rode the bus. No respondents reported riding the train or biking/walking.

FIGURE 1: COMMUTE MODES USED BY WEEKLY FREQUENCY OF USE



* Total will add to more than 100%; multiple responses permitted.

Table 1 summarizes the current mode split as the percentage of weekly trips made for all, with telework and compressed schedules included as "modes."

TABLE 1: COMMUTE MODE SPLIT BY WEEKLY TRIPS

Commute Mode	Mode as Percentage of Weekly Trips (n=818)
Drive alone	9.4%
Carpool	2.6%
Vanpool*	85.3%
Bus	0.4%
Bike/walk	0.0%
Telework	1.7%
Compressed Work Week	0.6%

*Commuters sick, or not commuting to work during the survey week for some other reason, such as away for business travel, account for why some commuters are not registering at least one day for vanpooling.

Similar to the frequency of mode use presented in Figure 1, the largest percentage (85.3%) of weekly trips are vanpool. Just over 9% of weekly trips were made by carpool (9.4%). About 3% of trips (2.6%) were made by carpool. Riding the bus accounted for a small share of trips, 0.4%. Slightly more than 1% (1.7%) of weekly trips were actually not made, because the respondent was telecommuting on these days. Similarly 0.6% of weekly trips could be attributed to compressed work week days off.

CURRENT TRAVEL PATTERNS

Distance and Time from Home to Work

Table 2 shows the distance vanpool riders report traveling from home to work and the amount of time it takes. On average, vanpool riders travel 35.2 miles from their home to their work location and their trip takes an average of 49.3 minutes.

TABLE 2: DISTANCE AND TIME FROM HOME TO WORK

Distance (n = 802)	Percent
15 miles or less	7.0%
16 - 30 miles	32.3%
31 - 45 miles	43.1%
46 - 60 miles	12.9%
More than 60 miles	4.7%
Time (n = 790)	**Percent**
15 minutes or less	4.7%
16 – 30 minutes	9.0%
31 – 45 minutes	35.2%
46 – 60 minutes	37.4%
61 minutes or more	13.7%

Means of Traveling to Vanpool

The majority of respondents (83.3%) drove alone to meet their vanpool; 6.9% leave from home or are the vanpool driver. Table 3 illustrates all means of how respondents meet their vanpools.

TABLE 3: MEANS OF GETTING TO VANPOOL
(n = 816)

Access Mode to Vanpool	Percent
Drive alone	83.2%
Leave from home/van driver	6.9%
Dropped off at location	4.3%
Carpool	2.2%
Picked up at home	2.1%
Other	1.3%

Distance to Vanpool

Respondents travel an average of 6.6 miles to meet their vanpool. The median distance traveled is 5.0 miles. Respondents travel distances up to 60 miles to meet their vanpool as shown in Table 4.

TABLE 4: NUMBER OF MILES TO VANPOOL
(n = 728)

Number of Miles	Percent
1 mile or less	14.1%
1.1 mile - 2 miles	9.0%
2.1 miles - 4 miles	21.5%
4.1 miles - 6 miles	18.0%
6.1 miles - 8 miles	12.8%
8.1 miles - 10 miles	9.6%
More than 10 miles	15.0%
Mean =	6.6 miles

The majority of vanpoolers (83.2%) drive alone to a central meeting point. These trips are significant to the calculation of the air quality impact of vanpooling, because a large proportion of auto emissions are produced during the first few miles of a vehicle trip, when the engine is cold. Even though these trips tend to be short, these trips must be accounted for in the air quality evaluation.

Length of Time Vanpooling

When asked the length of time they had been commuting to work in a vanpool, respondents indicate they been involved in a vanpool for an average (mean) of 44 months. The majority of respondents (72.9%) report vanpooling for more than one year, with nearly two in ten (16.8%) reporting more than five years vanpooling. Table 5 summarizes all the responses.

TABLE 5: LENGTH OF TIME VANPOOLING
(n = 815)

Length of Time	Percent
1 – 12 months	27.1%
13 – 24 months	30.6%
25 – 36 months	12.1%
37 – 48 months	7.9%
49 – 60 months	5.5%
More than 60 months	16.8%
Mean =	44 months

Makeup of Vanpool

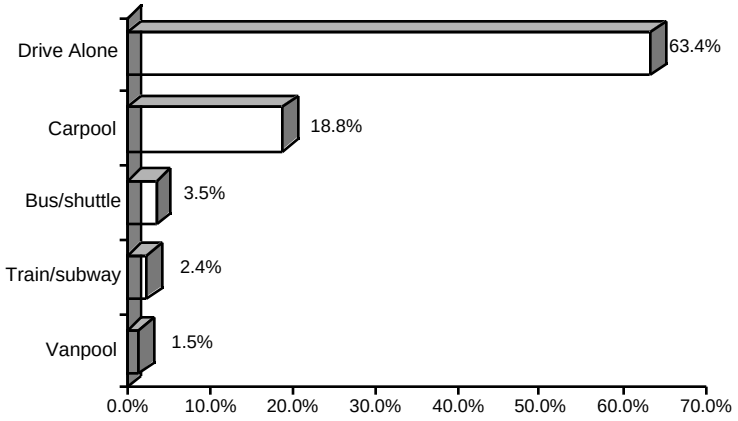
Vanpool riders report an average of 9.5 persons ride in each vanpool. The number of people in a vanpool ranges from four to 16 persons.

MODE CHANGES

Commute Mode Prior to Vanpooling

Prior to vanpooling, 63.4% of respondents usually drove alone to work, 18.8% usually carpooled, 3.5% took the bus, and 2.4% took the train/subway. Figure 2 illustrates the results for single mode commuters who used the mode five days per week.

FIGURE 2: TYPICAL TRANSPORTATION MODE PRIOR TO VANPOOLING
(n = 818)



FINANCIAL ASSISTANCE

Employer Provided Financial Assistance

Approximately seven in ten survey respondents (69.8%) replied their employer provides financial assistance for all or part of their vanpool expenses. Slightly less than one in five (19.4%) replied their employer does not provide financial assistance, and the remaining 10.8% are unsure. The types of incentives provided by the employer, vendor, or TMA include:

- Full cost of the vanpool
- Commuter Choice benefits
- Subsidies for riders
- Driver riding free

Length of Time Receiving Financial Assistance

As shown in Table 6, more than one-half (52.2%) of those respondents receiving financial assistance stated they benefited from the incentives for one to two years. The median length of time for receiving the incentives is 1.6 years.

TABLE 6: LENGTH OF TIME RECEIVING FINANCIAL ASSISTANCE
(n = 565)

Length of Time	Percent
Less than one year	17.0%
1 – 2 years	52.2%
3 – 4 years	20.9%
5+ years	9.9%
Median =	**1.6 years**

Use of Vanpool Prior to Receipt of Financial Assistance

The survey asked respondents receiving financial assistance for all or part of their vanpool expenses if they vanpooled prior to the vanpool assistance being available. The overwhelming majority of the respondents receiving financial assistance (83.9%) did not vanpool prior to receiving the financial assistance.

Importance of Financial Assistance in Vanpooling Decision

As shown in Table 7, the overall majority (71.6%) of respondents receiving assistance rate the receipt of financial assistance as "very important" in their decision to start or continue vanpooling.

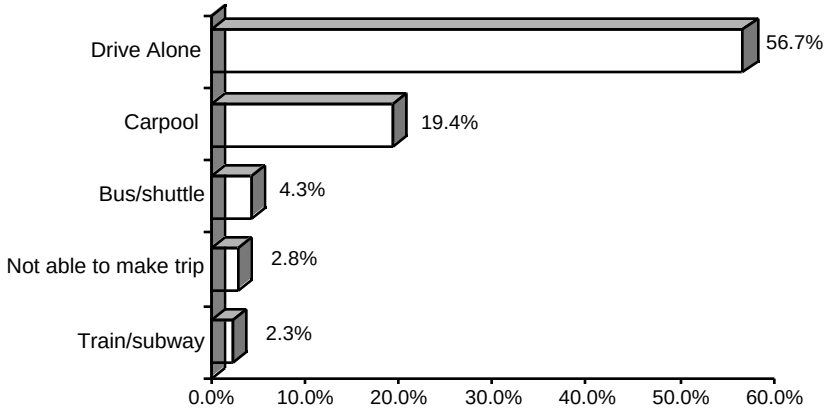
TABLE 7: IMPORTANCE OF FINANCIAL ASSISTANCE
(n = 567)

Importance	Percent
Very Important	71.6%
Somewhat Important	18.7%
Not at all Important	9.7%

Alternate Transportation Mode if Vanpooling not an Option

The survey asked respondents how they would commute to work if vanpooling were not available as an option. As shown in Figure 3, more than half (56.7%) stated they would drive alone, while 19.4% said they would carpool.

FIGURE 3: TRANSPORTATION MODE USED IF VANPOOLING NOT AN OPTION
(n=818)



SECTION 4 TRAVEL AND EMISSION REDUCTIONS

The purpose of this survey is to collect the data necessary to calculate the travel and emissions reductions resulting from vanpool activities of the three primary Atlanta vanpool vendors participating in this survey. The measurement team used four impact measures to calculate travel and air quality emissions reductions:

- Placement rates and placements – Proportion and number of commuters who use vanpooling as a commute option
- Vehicle trip (VT) reduction – Number of vehicles removed from the road daily by commuters using vanpools
- Vehicle miles of travel (VMT) reduction – Number of miles that would have been traveled by the vehicles removed from the road daily by commuters who vanpool
- Emission reduction – Daily reductions in emissions of ozone precursors (NO_x and VOC) expressed in terms of tons per day reduced

PROGRAM IMPACT MEASURES

The estimated number of vanpool riders in the Atlanta region at the close of FY2002 was 1,864. The travel and air quality emissions reductions achieved by these vanpool riders are presented in Table A.

TABLE 8: VANPOOL RIDER PROGRAM TRAVEL AND EMISSION REDUCTIONS

Travel and Emission Reductions	FY2002 Results
Placement Rates	**100.0%**
- New vanpool placement rate	27.1%
- Retained vanpool placement rate	72.9%
Commuter Placements	**1,864**
- New vanpool placements	505
- Retained vanpool placements	1,359
Daily Vehicle Trips Reduced	**2,218**
- New vanpool placements	601
- Retained vanpool placements	1,617
Daily VMT Reduced	**78,011**
- New vanpool placements	21,141
- Retained vanpool placements	56,870
Daily Emissions Reduced	**0.1803**
- NO_x (tons)	0.0835
- VOC (tons)	0.0968

Commuter Placement Rates and Placements

Based on data from vendor records, an estimated 1,864 individuals commuted by vanpool at the time of the survey. The new placement rate shown in Table 8 reflects those commuters who started vanpooling during the FY2002 evaluation period. The retained placement rate reflects commuters who started vanpooling more than one year prior to the evaluation period.

Vehicle Trips and VMT Reduced

Vehicle trip reduction measures the number of vehicle trips no longer made as a result of commuters shifting to alternative modes. An examination of the travel behavior reported by survey respondents yields a vehicle trip reduction (VTR) factor of 1.19 daily one-way vehicle trips reduced per placement.

This factor, when multiplied by the number of placements in vanpools, equals a total daily vehicle trip reduction of 2,218 trips. Multiplying the number of vehicle trips reduced by the average commute distance for the respondents who vanpool results in a total daily vehicle miles traveled (VMT) reduction of 78,011 miles.

Emissions Reduced

The calculation of emissions benefits, defined as tons of pollutants reduced, are calculated with a simplified method using regional emission factors provided by the Georgia Department of Natural Resources, Environmental Protection Division. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of oxides of Nitrogen (NO_x) and Volatile Organic Compounds (VOC) is of particular concern in the region as these pollutants are the primary components in the formation of ozone.

For 2002, the emission factors are:

- NO_x = 1.150 grams per vehicle mile reduced
- VOC = 1.332 grams per vehicle mile reduced

These factors, when multiplied by the vehicle miles reduced and adjusted to account for the length of the drive to vanpool meeting points, equals:

- NO_x 0.0835 tons per day reduced
- VOC 0.0968 tons per day reduced

} 0.1803 tons pollutants per day reduced

SECTION 5 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Vanpooling is the only commute alternative the majority of vanpool rider survey respondents would use. Almost six in ten replied they would drive alone to work five days a week if vanpooling was not available. Two in ten said they would carpool and fewer than one in ten would use some form of transit.

The vanpoolers surveyed show a strong commitment to vanpooling as a commute option. Three-fourths of these commuters vanpool four days or more a week and nearly half of the respondents commute by vanpool five days a week. By vanpooling, the respondents reduce 2,218 trips daily. The respondents also are long-time users of the mode. On average they began vanpooling nearly four years ago.

The VMT reduction in the Atlanta region as a result of vanpool activity is particularly significant due to the lengths of the vanpoolers' commutes. On average, the one-way commute distance is 35.2 miles with nearly two in ten commuting 46 miles or more one-way. These VMT reductions result in correspondingly significant emissions reductions as a result of vanpooling activity in the region. Financial incentives are an important component in prompting commuters to vanpool. Almost seven in ten reported their employer or other organization provides financial assistance for all or part of their vanpool expenses. Of these respondents, nearly three-fourths stated receipt of the financial assistance is "very important" to their decision to start or continue vanpooling. The overwhelming majority of these commuters did not vanpool prior to receiving the incentive.

RECOMMENDATIONS

The results from the survey clearly show the substantial contributions vanpoolers make in trip and VMT reductions, and ultimately, emission reductions. Additional survey questions about the role incentives play in a commuter's choice to start or continue vanpooling also show a positive correlation between the availability of incentives and the choice to vanpool. These findings suggest several actions partners of the Atlanta TDM Framework should take to maintain and even improve vanpooling alternatives in the region. The recommendations are presented below:

- Continue to support new vanpool formation and maintenance of existing vanpools. Six in ten (56.7%) vanpool respondents would drive alone to work five days a week if vanpooling was not available. The large number of commuters who would switch back to driving alone would have a substantial impact on VMT and air quality emission reductions.

  The results of the survey clearly point to the success of the vanpools formed and maintained with assistance from vanpool vendors and local TMAs. Efforts to continue supporting vanpooling should include input from these organizations; these organizations are critical to the planning and implementation as they bring a breadth of experience and success to the table.

  Vanpool support comes in many forms, whether it is advocacy for additional vanpool infrastructure or funding for employer outreach to encourage vanpool ridership in the metropolitan Atlanta region. Integrating vanpooling into the corporate structure, with high-level executive involvement, is critical to the success of vanpool programs.

  The first van at an employer worksite is often the most difficult to establish. Recognizing the contributions of the first van at an employer worksite and disseminating information through testimonials from the initial riders on the benefits to commuting in a vanpool could help generate interest in additional vanpools at the worksite. Promoting the positive image of

employer-sponsored vanpools to the community may also help generate further interest in vanpooling at an employer worksite.

Providing support for large-scale and targeted advertising that would be beneficial to all Atlanta TDM Framework partners and vanpool vendors is an additional means by which the Atlanta TDM Framework could support vanpool formation.

- Continue to support financial assistance for vanpool drivers and riders. Survey findings reveal that incentives play a key role in a commuter's decision to vanpool. Seven in ten (71.6%) respondents who receive financial assistance rate the receipt of such assistance as "very important" in their decision to start or to continue vanpooling and eight in ten (83.9%) did not vanpool prior to receiving financial assistance. Framework partners should continue to provide incentives for vanpooling, expand existing incentive programs, and identify funding for new incentive programs.

  The amount of and time period for offering a Framework partner incentive varies across the region. However, the most successful programs are ones that gain employer buy-in at the beginning by securing an ongoing employer-based subsidy, after the Framework partner incentive is no longer available.

  Whenever possible, the administrative burden of establishing vanpools should be the responsibility of the Atlanta TDM Framework, rather than the employer or commuter. Vanpool administration across multiple employers must be thought out in advance and create minimal confusion and burden for the employers and riders involved in order to be successful. Framework partners should continue to educate employers about the potential tax benefits available for offering vanpool programs and incentives

  As the region develops the universal transit smartcard, the Atlanta TDM Framework should explore options for integrating vanpool access into the system. Including vanpool vendors in the smartcard program would allow for a more seamless access to both transit and vanpooling alternatives.

APPENDIX A – FINAL SURVEY

Vanpool Rider Survey

If you want to be entered into the lottery drawing, please provide your name and phone number below.

Name (First and Last): _____

Phone Number: _____

FORM ID# _____

1. Last week, how did you travel from home to work each day? Check only one type of transportation for each day. If you used more than one type on a particular day, check the type you used for the longest distance portion of your trip. Check "Teleworked" if you worked all day during your regularly assigned work hours at home or another location that is closer to your home than is your usual work location (other than for an off-site meeting).

Type of Transportation	M	T	W	Th	F
Drove alone (including motorcycle/moped)	❑	❑	❑	❑	❑
Carpool (including with family/household member)	❑	❑	❑	❑	❑
Vanpool (with co-workers or others who work nearby)	❑	❑	❑	❑	❑
Rode a bus (MARTA, C-Tran, Cobb Community Transit, Other)	❑	❑	❑	❑	❑
Rode a train/subway (MARTA)	❑	❑	❑	❑	❑
Bicycled/walked	❑	❑	❑	❑	❑
Teleworked (all day at home or other location)	❑	❑	❑	❑	❑
Compressed workweek day off	❑	❑	❑	❑	❑
Did not work (sick, vacation, holiday, regular day off)	❑	❑	❑	❑	❑
Other (specify) _____	❑	❑	❑	❑	❑

2. Including the mileage to your vanpool pick-up point, how many miles do you commute from home to your usual work location, one-way, and how long does it take you to make this trip?

_____ miles AND _____ minutes

3. How many people, including yourself, usually ride to work in your vanpool?

Vanpool: _____ number of people

4. On days that you carpool to work, how many people, including yourself, usually ride in your carpool?

Carpool: _____ number of people ❑ Do not carpool

5. How do you travel to where you meet your vanpool?

❑ Drive alone ❑ Bicycle ❑ Dropped off at location
❑ Ride a bus ❑ Leave from home ❑ Other (specify) _____
❑ Walk ❑ Picked up at home _____

6. How far do you travel to this location? If you travel more than one mile, please indicate the number of miles.

❑ 1/4 mile or less ❑ 1/2 mile ❑ 3/4 mile ❑ 1 mile
❑ More than 1 mile (specify) _____ miles ❑ Not applicable (leave from home/picked up at home)

7. What is your home zip code? _____

8. What is your work zip code? _____

CONTINUE ON OTHER SIDE ...

9. How long have you been commuting to work by vanpool? (Report as either months or years, as appropriate)

_____ months OR _____ years

10. Before you started vanpooling, how did you usually travel to work? Check one box for each day.

Type of Transportation	M	T	W	Th	F
Drove alone (including motorcycle/moped)	❑	❑	❑	❑	❑
Carpooled (including with family/household member)	❑	❑	❑	❑	❑
Vanpooled (with co-workers or others who work nearby)	❑	❑	❑	❑	❑
Rode a bus (MARTA, C-Tran, Cobb Community Transit, Other)	❑	❑	❑	❑	❑
Rode a train/subway (MARTA)	❑	❑	❑	❑	❑
Bicycled/walked	❑	❑	❑	❑	❑
Teleworked (all day at home or other location)	❑	❑	❑	❑	❑
Had a compressed workweek day off	❑	❑	❑	❑	❑
Did not work (sick, vacation, holiday, regular day off)	❑	❑	❑	❑	❑
Other (specify) _____	❑	❑	❑	❑	❑

11. Does your employer or a rideshare organization provide financial assistance for all or part of your vanpool expenses? (Financial assistance may include: cost of van lease, cost of insurance, gasoline expenses, or maintenance costs).

❑ Yes ❑ No ❑ Do not know

12. If yes, how long have you benefited from this financial assistance?

❑ Less than 1 year ❑ 3-4 years ❑ No financial assistance
❑ 1-2 years ❑ 5 or more years

13. Did you vanpool before this financial assistance was available?

❑ Yes ❑ No ❑ No financial assistance

14. How important was the financial assistance in your decision to start or continue vanpooling?

❑ Not at all important ❑ Very important
❑ Somewhat important ❑ No financial assistance

15. If vanpooling was not an option to you, how would you travel to work? Check one box for each day.

Type of Transportation	M	T	W	Th	F
Drive alone (including motorcycle/moped)	❑	❑	❑	❑	❑
Carpool (including with family/household member)	❑	❑	❑	❑	❑
Ride a bus (MARTA, C-Tran, Cobb Community Transit, Other)	❑	❑	❑	❑	❑
Ride a train/subway (MARTA)	❑	❑	❑	❑	❑
Bicycle/walk	❑	❑	❑	❑	❑
Telework (all day at home or other location)	❑	❑	❑	❑	❑
Have a compressed workweek day off	❑	❑	❑	❑	❑
Would have regular day off	❑	❑	❑	❑	❑
Would not be able to make the trip to this work location	❑	❑	❑	❑	❑
Other (specify) _____	❑	❑	❑	❑	❑

Thank you for completing this survey. Please return your completed survey by this Friday. You may either give it to your vanpool driver or mail it in the postage paid envelope provided. Your responses will be used for research purposes only and will be kept completely confidential. If you have questions, please call (678) 244-4152.

APPENDIX B – TRAVEL AND EMISSION REDUCTION CALCULATIONS

	VP
Placements	
New	505
Retained	1,359
Total	1,864
VT Reduced	
New	(601)
Retained	(1,617)
Total	(2,218)
VMT Reduced	
New	(21,141)
Retained	(56,870)
Total	(78,010)
Emissions Reduced	
NOx	(0.0835)
VOC	(0.0968)
Total	(0.1803)

Vanpool Vendor Calculation

Vanpool Riders	1,864	
Vanpool Placement Rate		
New Placement Rate	27.1%	
Retained Placement Rate	72.9%	
Estimate number of new placements	505	= DB registrants x New Placement Rate
Estimate number of retained placements	1,359	= DB registrants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(1.19)	= daily trips reduced / total new placements
Retained VTR Factor	(1.19)	= daily trips reduced / total retained placements

Vanpool Vendor Calculation - continued

Vanpool VT Reduced (daily)
(placements x VTR factor)

(new)	(601)
(retained)	(1,617)

One-way Trip distance (mile) - New	35
One-way Trip distance (mile) - Retained	35

Vanpool VMT Reduced (daily)

(new)	(21,141)
(retained)	(56,870)

Adjust VT/VMT for SOV Access

Percent SOV Access - New	83.1%
Adjusted VT reduced - New	(101)
Access distance (miles) - New	6.6
Adjusted VMT reduced - New	(17,858)
Percent SOV Access - Retained	83.1%
Adjusted VT reduced - Retained	(273)
Access distance (miles) - Retained	6.6
Adjusted VMT reduced - Retained	(48,038)

Vanpool Vendor Calculation - continued

Emissions Reduced

Daily

NOx Reduced (gm) - New Users	(20,536)
VOC Reduced (gm) - New Users	(23,786)
NOx Reduced (gm) - Retained Users	(55,243)
VOC Reduced (gm) - Retained Users	(63,986)

Yearly

NOx Reduced - New Users	(5,134,050)
VOC Reduced - New Users	(5,946,569)
NOx Reduced - Retained Users	(13,810,784)
VOC Reduced - Retained Users	(15,996,491)

KG (Daily)

NOx Reduced - New Users	(20.54)
VOC Reduced - New Users	(23.79)
NOx Reduced - Retained Users	(55.24)
VOC Reduced - Retained Users	(63.99)

Tons (Daily)

NOx Reduced - New Users	(0.0226)
VOC Reduced - New Users	(0.0262)
NOx Reduced - Retained Users	(0.0609)
VOC Reduced - Retained Users	(0.0705)

Total Emissions Reduced (Tons/Day)

NOx Reduced - (New + Retained Users)	(0.0835)
VOC Reduced - (New + Retained Users)	(0.0968)

APPENDIX B-7 – FEBRUARY 2003 DISCOUNT TRANSIT PASS SURVEY FINAL REPORT

EVALUATION OF THE EFFECTIVENESS OF PROGRAMS CONTAINED IN THE "FRAMEWORK FOR COOPERATION TO REDUCE TRAFFIC CONGESTION AND IMPROVE AIR QUALITY"

PHASE THREE

FEBRUARY 2003 DISCOUNT TRANSIT PASS USER SURVEY FINAL REPORT

PREPARED FOR:
GEORGIA DEPARTMENT OF TRANSPORTATION

PREPARED BY:
CENTER FOR TRANSPORTATION AND THE ENVIRONMENT

IN ASSOCIATION WITH

LDA CONSULTING
AND
CIC RESEARCH, INC.

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EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of a survey of transit pass recipients in the Atlanta 13-county nonattainment area[1] who participate in discount transit pass programs. The survey, conducted in February 2003, collected data in order to calculate the travel and air quality emission reductions from transit pass recipients who received discounted transit passes during federal fiscal year (FY) 2002. They survey also collected data to examine other key characteristics of discount transit pass recipients, including the role discounts play in a their decision to use transit.

The survey is one of several surveys being conducted as part of a broad research and measurement program sponsored by the Georgia Department of Transportation (GDOT) known as the "Evaluation of the Effectiveness of Programs contained in the Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality." The research and measurement program evaluates the effectiveness of programs aimed at changing individual and employer behavior about the voluntary use of alternative transportation to help reduce traffic congestion and improve air quality in the metropolitan Atlanta region. The programs, dubbed the Atlanta TDM Framework, are implemented by organizations such as The Clean Air Campaign, Transportation Management Associations, and the Atlanta Regional Commission.

PROGRAM TRAVEL AND EMISSION REDUCTIONS

The estimated number of transit pass users receiving discounted transit passes at the close of the close FY2002 was 29,698. The travel and air quality emission reductions achieved by these recipients are presented in Table A.

TABLE A: FY2002 DISCOUNT TRANSIT PASS USER PROGRAM TRAVEL AND EMISSION REDUCTIONS

Travel and Emission Reductions	FY2002 Results
Placement Rates	
- New transit placement rate	15.6%
- Retained transit placement rate	74.1%
Commuter Placements	**26,698**
- New transit placements	4,633
- Retained transit placements	22,006
Daily Vehicle Trips Reduced	**23,702**
- New transit placements	5,696
- Retained transit placements	18,006
Daily VMT Reduced	**453,311**
- New transit placements	113,227
- Retained transit placements	340,084
Daily Emissions Reduced	**0.8708**
- NO_x (tons)	0.4035
- VOC (tons)	0.4673

[1] Thirteen (13) county nonattainment area includes Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale counties.

Commuter Placement Rates and Placements

The measurement team divided the transit pass recipients into three commuter groups depending on when they started using transit and how important the discounted pass was in their decision to start using transit. Two of these groups are included in the travel and emission reductions presented in Table A.

The first group, "new transit placements", includes commuters who began using transit or increased the number of days they used transit in FY2002. The second group of commuters, "retained transit placements", began using transit before FY2002 but said the transit pass was important in their decision to start or continue using transit. The measurement team included these two groups in the travel and emission reduction calculations. The final group, "continued transit placements", includes commuters who said they used transit prior to receiving the pass and indicated the pass was not important to their decision to continue using transit. The measurement team did not include this group in the travel and emission reduction calculations.

Vehicle Trips and VMT Reduced

Vehicle trip reduction measures the number of vehicle trips no longer made as a result of commuters shifting to alternative modes. An examination of the travel behavior reported by survey respondents yields two vehicle trip reduction (VTR) factors, one for the new placement category and a second for the retained placement category. The VTR factors calculated from the survey results for the Atlanta region are below:

- New transit VTR factor: 1.23 daily one-way vehicle trips reduced per placement
- Retained transit VTR factor: 0.82 daily one-way vehicle trips reduced per placement

These factors, when multiplied by the respective number of new and retained placements, equal a total daily vehicle trip reduction of 23,702 trips. Multiplying the number of vehicle trips reduced by the average commute distance for the respondents who use transit results in a total daily vehicle miles traveled (VMT) reduction of 453,311 miles.

Emissions Reduced

Emission benefits, defined as tons of pollutants reduced, are calculated by multiplying regional emission factors provided by the Georgia Department of Natural Resources, Georgia Environmental Protection Division by the amount of VMT reduced. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of oxides of Nitrogen (NO_x) and Volatile Organic Compounds (VOC) is of particular concern in the region as these pollutants are the primary components in the formation of ozone. The emissions reduced equal:

- NO_x 0.4035 tons per day reduced
- VOC 0.4673 tons per day reduced

} 0.8708 tons pollutants per day reduced

CONCLUSIONS

Discount transit pass recipients show a strong commitment to using transit as a commute option. The average length of time for transit use as a commute mode for respondents is slightly more than five years (62 months). Transit is also the primary mode (three or more days per week) for commuting for the vast majority of respondents (83.7%). By using transit, discount transit pass users reduce 23,702 trips daily.

The average one-way commute for the transit pass recipients is 19 miles, resulting in overall daily VMT reductions from transit use of 454,089 miles. On average, the transit commute trip takes

almost 43 minutes. This is slightly more than 12 minutes longer than the average commute reported in the 2000 Census Journey to Work data for the Atlanta region (30.5 minutes).

Nearly three-fourths (72.7%) of the transit pass recipients participating in the survey reported receiving a discounted transit pass from their employer/other organization, while nearly one-quarter (22.8%) reported receiving a free transit pass. The free or discounted pass is also primarily used for commute trips. About 44% of the transit pass recipients report using transit to commute to work three or more days a week prior to receiving the discounted pass, and about 43% drove alone three or more days a week prior to receiving a discounted pass. When asked how they would commute if the discounted transit pass was unavailable, only 38.4% respond they would continue using transit as their primary commute mode (three or more days per week). Almost one-half (49.2%) indicate they would drive alone to work three or more days a week.

Most discount transit pass recipients (62.9%) rate the receipt of a free or discounted pass as "very important" in their decision to start using transit. An even higher proportion of respondents (75.8%) rate the receipt of a free of discounted transit pass as "very important" in their decision to continue using transit. The availability of discount transit passes is critical to getting commuters to take transit and is therefore critical to maintaining the emission reductions that result from transit use.

RECOMMENDATIONS

The survey results clearly show the substantial contributions transit commuters make in travel and air quality emission reductions. Additional survey questions about the role incentives play in a commuter's choice to start or continue using transit show a positive correlation between the availability of incentives and the choice to use transit. Theses findings suggest at least two actions Framework partners could take to maintain and improve transit alternatives in the region:

- *Continue to provide incentives in the form of discounted transit passes to help overcome some of the barriers associated with use of alternative commute modes.*

- *Work with employers to offer a higher level of incentive or subsidy amount to transit pass users.*

SECTION 1 OVERVIEW

PURPOSE OF THE REPORT

The purpose of the discount transit pass user survey is to collect data necessary to calculate the travel and air quality emission reductions achieved by transit pass recipients who receive discounted transit passes for their commute and to examine other key characteristics of these commuters, including the role discounts play in their decision to use transit.

The survey is part of a broad research and measurement program sponsored by the Georgia Department of Transportation (GDOT) known as the "Evaluation of the Effectiveness of Programs contained in the Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality." The research and measurement program evaluates the effectiveness of programs aimed at changing individual and employer behavior about the voluntary use of alternative transportation to help reduce traffic congestion and improve air quality in the metropolitan Atlanta region. The programs are referred to as the Atlanta TDM Framework and include organizations such as The Clean Air Campaign, Transportation Management Associations, and the Atlanta Regional Commission.

ORGANIZATION OF REPORT

The report is divided into five sections.

Section 1 – Purpose and organization of the report
Section 2 – Description of the survey and sampling methodology
Section 3 – Results of the survey
Section 4 – Travel and emission reductions
Section 5 - Conclusions and recommendations

The report also includes appendices with the final survey instrument and the detailed impact calculation spreadsheets.

SECTION 2 DATA COLLECTION

This section briefly describes the Discount Transit Pass User Survey methodology.

QUESTIONNAIRE DEVELOPMENT

The measurement team developed the survey questionnaire with input from partners of the Atlanta TDM Framework. The measurement team designed the survey for self-administration and included instructions for completing the survey and returning it by mail.

SAMPLE PREPARATION

The population from which to draw the sample includes employers who received monthly transit passes through the Buckhead Area Transportation Management Association (BATMA), Central Atlanta Progress, Downtown Transportation Management Association, Commuter Club, the Hartsfield Area Transportation Management Association (HATMA), Midtown Transportation Solutions (MTS), and Perimeter Transportation Coalition (PTC). Other employers include those receiving monthly transit passes directly from the Metropolitan Atlanta Rapid Transit Authority (MARTA) and Cobb Community Transit (CCT). The Clean Air Campaign (CAC) also identified employers offering monthly transit passes who were not represented by any of the transportation management associations or transit providers. The list of employers distributing monthly transit passes for MARTA, CCT, and Gwinnett County Transit included 312 employers. The measurement team collected information on the number of individuals receiving monthly transit passes from their employers. Based on data from previous months' pass sales, it was determined an estimated 29,698 individuals receive monthly transit passes.

Due to the large size of the population, the measurement team developed a stratified sample from the list of 312 employers. The stratified sample included 93 companies distributing a total of 15,842 transit passes to commuters.

SURVEY PRE-TEST

Two employers purchasing transit passes from Central Atlanta Progress, Downtown TMA were recruited to participate in a survey pre-test. The measurement team delivered the survey instrument to the employers for distribution to their employees receiving transit passes on January 3, 2003. A total of 25 employees from the two companies completed the surveys. Following a review of the surveys, the measurement team made minor changes to the survey prior to distribution to the stratified sample.

SURVEY DISTRIBUTION AND COLLECTION

The measurement team prepared packages for individual employers that included instructions for survey distribution, fliers announcing the survey and copies of the survey. The number of surveys included with each package was based on previous months' transit pass distributions. The packages distributed to companies with a TMA partner occurred with the delivery of February transit passes. The measurement team delivered the packages to selected employers that participate in the MARTA Partnership Program or are partners of The Clean Air Campaign. Survey delivery occurred with monthly transit pass distribution for the month of February beginning on January 20, 2003. Six of the companies selected in the stratified sample did not respond to requests to participate. This resulted in a total of 87 companies participating in the survey representing a distribution of 15,685 monthly passes.

The measurement team requested that employers return undistributed surveys and received 1,804 from the participating employers. These numbers were removed from the sample frame resulting in

a survey distribution of 13,881. A total of 3,340 completed surveys were returned, resulting in a 24.1% response rate. The margin of error for this sample size is +/-1.6 percentage points in 95 out of 100 cases.

SECTION 3 SURVEY RESULTS

INTRODUCTION

As mentioned previously, the survey included commuters who use transit to commute to and from work and specifically targeted transit users receiving discount transit passes. The survey collected the following from each survey respondent:

- Current commute mode
- Commute characteristics (commute distance and travel time, transit access meeting point, mode of travel to access meeting point, and distance to access meeting point)
- Role of financial assistance
- Commute mode if not using transit

Survey findings presented in the results tables below show respondent percentages. Most tables also show the raw number of respondents (e.g., n= 3,340). The margin of error for the questions answered by the full sample of recipients who returned the survey (3,340) is +/- 1.6 percentage points in 95 out of 100 cases.

The measurement team used current and previous commute modes identified by survey respondents to calculate estimated travel and air quality emission reductions. The travel and air quality emission reductions are presented in Section 4.

CURRENT COMMUTE MODE

The survey asked respondents to indicate how they traveled from home to work each day. If a respondent used more than one mode for their trip, the survey instructed them to check only the mode used for the longest portion of the trip. These responses are detailed under "True Value" in Table 1. The measurement team also calculated an "adjusted value" to reflect transit use among respondents who used transit, but not for the longest distance portion of their trip. The aim of this adjustment is to give transit riders credit for the use of the smaller transit portion of the their commute. Figure 1 and Table 2 are based on adjusted values only.

Current Mode Split by Frequency of Use

Table 1 shows percentages of respondents who drove alone, carpooled, vanpooled, used a bus or train, and biked/walked, based on the frequency of use for both the true value (reflecting the mode used for the longest portion of the commute trip) and adjusted value (reflecting the use of transit for a shorter portion of the commute trip).

TABLE 1: MODE SPLIT, FREQUENCY OF USE – TRUE AND ADJUSTED VALUES

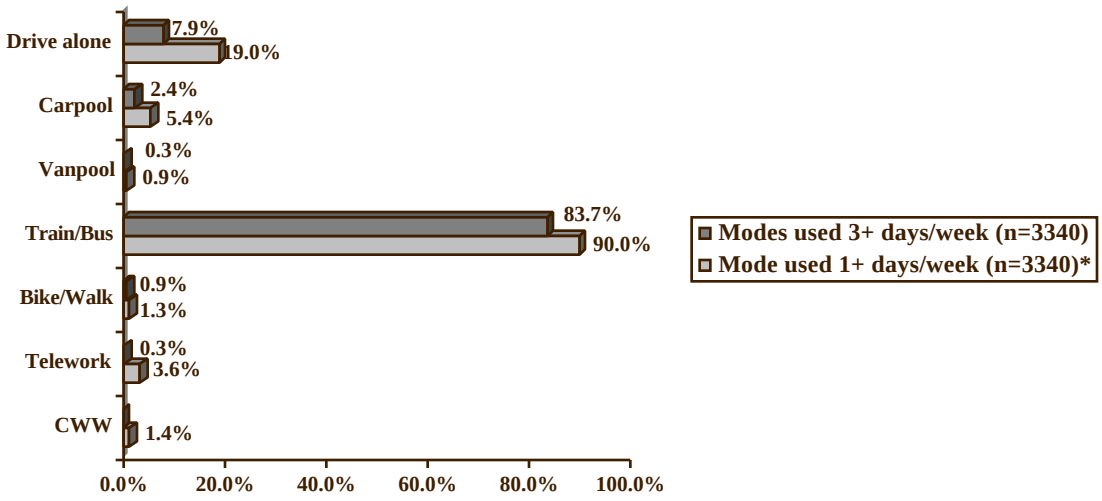
Commute Mode	1+ Days		3+ Days	
	True Value	Adjusted Value	True Value	Adjusted Value
Drive Alone	31.0%	19.0%	20.2%	7.9%
Carpool	5.4%	5.4%	2.4%	2.4%
Vanpool	0.9%	0.9%	0.3%	0.3%
Train/Bus	77.5%	90.0%	71.4%	83.7%
Bike/Walk	1.3%	1.3%	0.9%	0.9%
Telework	3.7%	3.6%	0.3%	0.3%
CWW	1.5%	1.4%	0.0%	0.0%

Figure 1 compares the adjusted values for frequency of use for respondents who use modes one or more days per week versus three or more days per week. The top bar of each mode group shows the percentage of respondents who used a mode as their "primary" or "regular" mode, that is they used the mode three or more times per week. As shown, the most common primary mode was transit (train/bus), used by 83.7% of respondents. The second most popular mode, used by 7.9% of respondents, was drive alone and slightly more than 2% (2.4%) carpooled. Bike/walk, vanpool, and telework were each reported by less than 1% of the respondents.

The bottom bar of each mode group shows the percentage of respondents who used the mode at least one day during the survey week. This category also includes respondents who said they used these modes two, three, four or five times during the week. In this case, the percentages of participants using each mode increased, because some respondents who were counted in the three or more days per week category used a secondary mode in addition to their primary mode.

Transit (train/bus) was still the most popular mode, used by 90.0%[2]. Drive alone was still the second most popular mode (19.0%). About 5.4% of respondents carpooled and 3.6% teleworked. Slightly more than 1% each worked a compressed work week (1.4%) and biked/walked (1.3%). Less than 1% (0.9%) rode in a vanpool.

FIGURE 1: COMMUTE MODES USED BY WEEKLY FREQUENCY OF USE



* *Total will add to more than 100%; multiple responses permitted*

[2] The survey asked respondents about their travel each work day in the prior week to completing the survey. Options included "Did not work (sick, vacation, holiday, regular day off)" and "Other". Transit riders on vacation, sick, or not commuting to work during the survey week for some other reason, such as away for business travel, account for why some commuters are not registering at least one day for using transit.

Table 2 summarizes the current mode split as the percentage of weekly trips made for all modes, with telework and compressed schedules included as "modes."

TABLE 2: COMMUTE MODE SPLIT BY WEEKLY TRIPS

Commute Mode	Mode as Percentage of Weekly Trips (n=3,340)
Drive alone	10.2%
Carpool	3.0%
Vanpool	0.4%
Train/Bus	84.0%
Bike/walk	0.9%
Telework	1.1%
Compressed Work Week	0.3%

Similar to the frequency of mode use presented in Figure 1, the largest percentage (84.0%) of weekly trips is transit. Just over 10% of weekly trips are drive alone (10.2%). Carpool accounts for 3.0% of trips. Telework (1.1%), bike/walk (0.9%), vanpool (0.4%), and compressed work weeks (0.3%) account for a small share of trips.

CURRENT TRAVEL PATTERNS

Distance and Time from Home to Work

Table 3 shows the distance transit riders report traveling from home to work and the amount of time it takes. On average, transit riders travel 19 miles from their home to work location and their trip takes an average of 43 minutes.

TABLE 3: DISTANCE AND TIME FROM HOME TO WORK

Distance (n =3,250)	Percent	Time (n =3,064)	Percent
5 miles or less	11.6%	15 minutes or less	10.0%
6 – 10 miles	15.4%	16 – 30 minutes	30.0%
11 – 15 miles	18.4%	31 – 45 minutes	26.3%
16 - 20 miles	17.0%	46 – 60 minutes	20.6%
21 – 30 miles	24.1%	61 minutes or more	13.1%
31 - 50 miles	12.7%	**Mean**	42.6 minutes
More than 50 miles	0.9%		
Mean	19.0 miles		

Access to Transit

The majority of respondents (65.1%) drive alone to access transit followed by 19.1% who walk. Table 4 illustrates all means of how respondents access transit.

TABLE 4: MEANS OF ACCESSING TRANSIT
(n = 3,271)

Access Mode to Transit	Percent
Drive alone	65.1%
Walk	19.1%
Dropped off at location/Carpool	7.8%
Bus	7.5%
Other	0.5%

Distance to Transit

Respondents travel an average of 6.3 miles to meet the bus or train. Respondents travel distances up to 63 miles to access transit as shown in Table 5.

TABLE 5: NUMBER OF MILES TO BUS OR TRAIN
(n = 3,112)

Number of Miles	Percent
0.25 of a mile or less	21.2%
0.50 mile - 1 mile	18.6%
1.1 miles - 5 miles	23.2%
5.1 miles - 10 miles	16.7%
10.1 miles - 20 miles	14.7%
More than 20 miles	5.6%
Mean =	6.3 miles

The majority of transit pass users (65.1%) drive alone to access the bus or train. These trips are significant to the calculation of the air quality impact of transit use because a large proportion of auto emissions are produced during the first few miles of a vehicle trip, when the engine is cold. Even though these trips tend to be short (an average of 6.6 miles), these trips must be accounted for in the air quality evaluation.

Length of Time Using Transit

When asked the length of time they had been commuting to work by bus or train, respondents indicated they commuted by transit for an average of 62 months (more than five years). The largest percentage of respondents (27.8%) report commuting by bus or train for more than 60 months. This group is closely followed by the respondents reporting using transit for their commute for less than one year (27.7%).

Table 6 summarizes all the responses.

TABLE 6: LENGTH OF TIME COMMUTING VIA TRANSIT
(n =3,231)

Length of Time	Percent
1 – 12 months	27.7%
13 – 24 months	18.8%
25 – 36 months	12.3%
37 – 48 months	7.2%
49 – 60 months	6.3%
More than 60 months	27.8%
Mean =	62 months

Means of Commuting if Bus or Train not Available

The survey asked respondents how they would commute to work if the bus or train were not available as an option. As shown in Table 7, 70.6% stated they would drive alone, while 13.7% said they would carpool or vanpool.

TABLE 7: TRANSPORTATION MODE USED IF BUS OR TRAIN NOT AN OPTION
(n =3,253)

Means of Commuting	Percent
Drive Alone	70.6%
Carpool/Vanpool	13.7%
Not Able to Work at Location	8.2%
Take a Taxi	3.2%
Would Not Make the Trip	2.0%
Walk/Bicycle	2.0%
Other	0.2%

FINANCIAL ASSISTANCE

This survey focused on recipients of discount transit passes. The discounts are either offered by the transit providers (e.g., the MARTA Partnership Program) or through TMAs. In addition, some employers cover the costs of transit passes and employees receive the passes at no cost.

Receipt of Free or Discounted Transit Passes

The survey asked participants if they received free or discounted transit passes from their employer or other organization. More than seven in ten respondents (72.7%) report receiving a discounted transit pass, 22.8% of respondents report receiving a free transit pass, and 1.3% of respondents receive either a free or discounted pass. A total of 3.2% of the respondents are unsure or did not receive a free or discounted pass. Table 8 shows all responses.

TABLE 8: PARTICIPANTS RECEIVING FREE OR DISCOUNTED TRANSIT PASSES
(n = 3,340)

Receives Free or Discounted Pass	Frequency	Percent
Yes, a free pass	753	22.5%
Yes, a discounted pass	2,396	71.7%
Yes (unspecified)	42	1.3%
No	98	2.9%
Don't Know	8	0.2%
Left Blank	43	1.3%

Length of Time Receiving Free or Discounted Transit Pass

As shown in Table 9, more than three in ten (35.7%) of those respondents receiving a free or discounted transit pass stated they benefited from this incentive for one to two years.

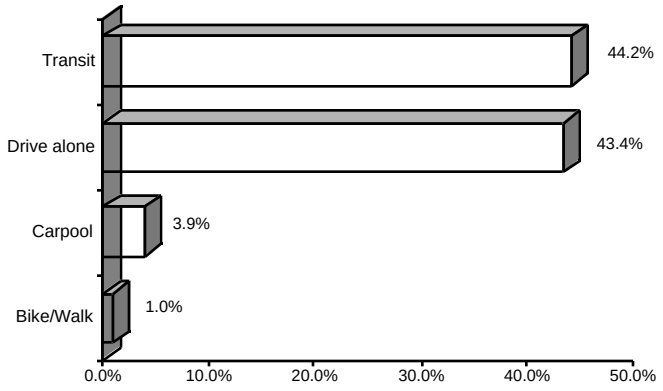
TABLE 9: LENGTH OF TIME RECEIVING FREE OR DISCOUNTED TRANSIT PASS
(n =3,141)

Length of Time	Percent
Less than one year	27.3%
1 – 2 years	35.7%
3 – 4 years	21.2%
5+ years	15.9%

Commute Mode Prior to Receiving Free or Discounted Transit Pass

Prior to receiving a free or discounted transit pass, 44.2% of respondents reported using transit three or more days a week for their commute. More than four in ten (43.4%) usually drove alone to work three or more days a week. Figure 2 illustrates the results for the typical transportation mode (three or more days per week) used by survey respondents prior to receiving a free or discounted transit pass.

FIGURE 2: TYPICAL TRANSPORTATION MODE PRIOR TO RECEIVING FREE OR DISCOUNTED PASS
(n = 3,020)



Use of Free Discounted Transit Pass for Commute and Non-Commute Trips

Survey respondents were asked about the use of the free or discounted transit pass for both commute and non-commute trips. The majority of respondents (63.3%) report using the free or discounted transit pass for their commute trip five or more days.

Survey respondents were also asked the number of times they used their free or discounted transit pass for non-commute trips. Most respondents (62.3%) did not use their free or discounted transit pass for non-commute trips. One in five (20.5%) used their pass one to two times, 8.8% used the pass three to four times, and 8.4% used their pass five or more times for non-commute trips. Table 10 shows total usage for non-commute trips.

TABLE 10: DAYS TRANSIT PASS USED FOR NON-COMMUTE TRIP
(n =3,124)

Days	Percent
0	62.3%
1-2 days	20.5%
3-4 days	8.8%
5+ days	8.4%

Importance of Free/Discounted Transit Pass in Decision to Use Transit

As shown in Table 11, the overall majority (62.9%) of respondents receiving a free or discounted transit pass rate the receipt of this incentive as "very important" in their decision to use transit.

TABLE 11: IMPORTANCE OF FREE OR DISCOUNTED PASS IN DECISION TO USE TRANSIT
(n =3,131)

Importance	Percent
Very Important	62.9%
Somewhat Important	14.0%
Not at all Important	3.8%
Didn't receive pass when started using transit	19.4%

Importance of Free or Discounted Transit Pass in Decision to Continue Using Transit

The survey asked respondents the importance of the free or discounted transit pass in their decision to continue using transit. Three-quarters of survey respondents (75.8%) rate the free or discounted transit pass as "very important". Table 12 shows the level of importance for all respondents.

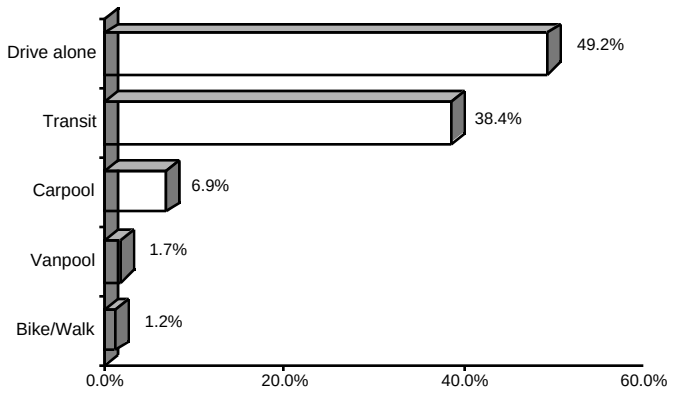
TABLE 12: IMPORTANCE OF FREE OR DISCOUNTED TRANSIT PASS IN DECISION TO CONTINUE USING TRANSIT
(n =3,129)

Importance	Percent
Very Important	75.8%
Somewhat Important	17.6%
Not at all Important	6.6%

Means of Commuting If Free or Discounted Transit Pass Not Available

The survey asked how respondents would travel to work if the free or discounted transit pass were no longer available. The highest proportion of respondents would drive alone (49.2%) as their primary commute mode (three or more days a week) if the free or discounted transit pass was not longer available. Figure 3 shows the primary commute modes respondents would use if the free or discounted transit pass was no longer available.

FIGURE 3: PRIMARY COMMUTE MODE SHOULD TRANSIT PASS NOT BE AVAILABLE
(n= 3,072)



SECTION 4 TRAVEL AND EMISSION REDUCTIONS

The purpose of this survey is to collect the data necessary to calculate the travel and air quality emission reductions resulting from transit riders receiving discounted transit passes participating in this survey. The measurement team used four impact measures to calculate travel and air quality emission reductions:

- Placement rates and placements – Proportion and number of commuters who use a discount pass when using transit as a commute option
- Vehicle trip (VT) reduction – Number of vehicles removed from the road daily by commuters using transit
- Vehicle miles of travel (VMT) reduction – Number of miles that would have been traveled by the vehicles removed from the road daily by commuters who use transit
- Emission reduction – Daily reductions in emissions of ozone precursors (VOC and NO_x) expressed in terms of tons per day reduced

PROGRAM TRAVEL AND EMISSION REDUCTIONS

The estimated number of transit pass users receiving discounted transit passes at the close of the close FY2002 was 29,698. The travel and air quality emission reductions achieved by these recipients are presented in Table 13.

TABLE 13: DISCOUNT TRANSIT PASS USER PROGRAM TRAVEL AND EMISSION REDUCTIONS

Travel and Emission Reductions	FY2002 Results
Placement Rates	
- New transit placement rate	15.6%
- Retained transit placement rate	74.1%
Commuter Placements	**26,698**
- New transit placements	4,633
- Retained transit placements	22,006
Daily Vehicle Trips Reduced	**23,702**
- New transit placements	5,696
- Retained transit placements	18,006
Daily VMT Reduced	**453,311**
- New transit placements	113,227
- Retained transit placements	340,084
Daily Emissions Reduced	**0.8708**
- NO_x (tons)	0.4035
- VOC (tons)	0.4673

Commuter Placement Rates and Placements

The measurement team divided discount transit pass recipients into three commuter groups depending on when they started using transit and how important the pass was to their use of transit:

- New transit placements
- Retained transit placements
- Continued transit placements

The first group of commuters is classified as "new transit placements." These commuters started using transit or increased the number of days per week that they use transit during FY2002. This group, representing about 4,600 transit pass recipients (16%), was included in the travel and emission reductions.

The remaining commuters used transit before the beginning of FY2002. These commuters are classified as either retained transit placements or continued transit placements. The distinction between these groups is the importance of the transit pass to their decision to start or continue using transit. Retained placements include two groups of commuters: commuters who said they began using transit after they started receiving the pass or commuters who were using transit before receiving the pass but who said the pass was important in their decision to continue using transit. In other words, the pass is influential to their decision to use transit but the shift to transit occurred before the start of the most recent evaluation year. Retained transit placements, representing approximately 22,000 transit pass recipients (74%), were included in the travel and emission reductions.

The final group, "continued transit placements", includes commuters who said they used transit prior to receiving the pass and who said the pass was not important to their decision to continue using transit. These commuters are not included in the calculations of benefits from discount transit pass use, because the pass did not affect their decision to use transit. This category also includes a small percentage of survey respondents who did not provide sufficient information on the survey to determine their placement status. Together this group represents about 10% of the transit pass recipients.

Vehicle Trips and VMT Reduced

Vehicle trip reduction measures the number of vehicle trips no longer made as a result of commuters shifting to alternative modes. An examination of the travel behavior reported by survey respondents yields two vehicle trip reduction (VTR) factors, one for new placement category and a second for the retained placement category. The VTR factors calculated from the survey results for the Atlanta region are below:

- New transit VTR factor: 1.23 daily one-way vehicle trips reduced per placement
- Retained transit VTR factor: 0.82 daily one-way vehicle trips reduced per placement

These factors, when multiplied by the respective number of new and retained placements, equal a total daily vehicle trip reduction of 23,702 trips. Multiplying the number of vehicle trips reduced by the average commute distance for the respondents who use transit results in a total daily vehicle miles traveled (VMT) reduction of 453,311 miles.

Emissions Reduced

The calculation of emission benefits, defined as tons of pollutants reduced, are calculated with a simplified method using regional emission factors provided by the Georgia Department of Natural Resources, Environmental Protection Division. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of oxides of Nitrogen (NO_x)

and Volatile Organic Compounds (VOC) is of particular concern in the region as these pollutants are the primary components in the formation of ozone.

For 2002, the emission factors are:

- NO_x = 1.150 grams per vehicle mile reduced
- VOC = 1.332 grams per vehicle mile reduced

These factors, when multiplied by the vehicle miles reduced and adjusted to account for the length of the drive to access transit, equals:

- NO_x 0.4035 tons per day reduced
- VOC 0.4673 tons per day reduced

} 0.8708 tons pollutants per day reduced

The emission reduction calculation is shown in Appendix A.

SECTION 5 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Discount transit pass recipients show a strong commitment to using transit as a commute option. The average length of time for transit use as a commute mode for respondents is slightly more than five years (62 months). Transit is also the primary mode (three or more days per week) for commuting for the vast majority of respondents (83.7%). By using transit, discount transit pass users reduce 23,702 trips daily.

The average one-way commute for the transit pass recipients is 19 miles, resulting in overall daily VMT reductions from transit use of 454,089 miles. On average, the transit commute trip takes almost 43 minutes. This is slightly more than 12 minutes longer than the average commute reported in the 2000 Census Journey to Work data for the Atlanta region (30.5 minutes).

Nearly three-fourths (72.7%) of the transit pass recipients participating in the survey reported receiving a discounted transit pass from their employer/other organization, while nearly one-quarter (22.8%) reported receiving a free transit pass. The free or discounted pass is also primarily used for commute trips. About 44% of the transit pass recipients report using transit to commute to work three or more days a week prior to receiving the discounted pass, and about 43% drove alone three or more days a week prior to receiving a discounted pass. When asked how they would commute if the discounted transit pass was unavailable, only 38.4% respond they would continue using transit as their primary commute mode (three or more days per week). Almost one-half (49.2%) indicate they would drive alone to work three or more days a week.

Most discount transit pass recipients (62.9%) rate the receipt of a free or discounted pass as "very important" in their decision to start using transit. An even higher proportion of respondents (75.8%) rate the receipt of a free of discounted transit pass as "very important" in their decision to continue using transit. The availability of discount transit passes is critical to getting commuters to take transit and is therefore critical to maintaining the emission reductions that result from transit use.

RECOMMENDATIONS

The survey results clearly show the substantial contributions transit commuters make in travel and air quality emission reductions. Additional survey questions about the role incentives play in a commuter's choice to start or continue using transit show a positive correlation between the availability of incentives and the choice to use transit. Theses findings suggest several actions Framework partners should take to maintain and improve transit alternatives in the region. The recommendations are presented below:

- *Continue to provide incentives in the form of discounted transit passes to help overcome some of the barriers associated with use of alternative commute modes.* The findings from the this survey show the importance of the discount pass in a commuter's decision to start as well as continue using transit. In addition, the average length of time commuting by transit reported in the survey findings demonstrates the commitment to the mode once commuters choose transit as an option. Providing incentives is important to attracting new riders and maintaining existing riders.

  Other surveys point to some of the barriers encountered when trying to encourage use of alternative commute modes such as transit. Results from the Regional Transportation Survey indicate the ease and convenience of cars or the hassle and lack of convenience in using alternatives are barriers preventing regular alternative commute mode use. Convenience of transit use is an issue because of increased commute times. A comparison of the average

commute time calculated from the results of this survey with 2000 Census Journey to Work data shows transit pass user survey respondents report a higher average commute time (42.6 minutes for survey respondents versus 30.5 minutes reported in the Census Journey to Work data). With transit infrastructure and access limited in the region, incentives can play an important role in making transit use a more attractive option.

The challenges encountered with commuting when the region has multiple transit providers may become an additional barrier in the future. As more and more transit systems come into service, the Atlanta TDM Framework should investigate the idea of a universal voucher system. Efforts are currently underway at MARTA, the region's largest transit provider, to develop a smartcard for use across all transit systems in the region. The targeted release date for the smartcard is FY2005.

- *Work with employers to offer a higher level of incentive or subsidy amount to transit pass users.* Less than one-fourth of respondents report receiving a free transit pass from their employer. Results from the Business Leader Survey indicate that employers are aware of the impacts traffic and congestion have on business operations. The Business Leaders Survey indicates two of the primary reasons employers offer commute assistance programs are to increase employee benefits and improve employee morale. These factors have a significant influence on daily business operations and translate into greater productivity. Efforts should focus on working with employers to demonstrate costs savings through reductions in parking costs and other bottom line business costs achieved through employee transit use. The economic climate could initially make businesses less receptive to offering additional incentives, but this can be overcome by demonstrating the costs of the additional incentives can be offset by savings in other areas.

  Efforts should focus on working with employers to demonstrate savings to bottom line business costs achieved through employee transit use. The economic climate could initially make businesses less receptive to offering additional incentives, but it should be demonstrated to employers that the types of incentives are easily added to employee benefit packages through the use of pre-tax dollars.

  Enhanced subsidies would help employer outreach teams in promoting transit as an alternative commute mode to employees. The added incentives are an additional benefit to the employee from their employer and this could assist in attracting more choice riders—those employees who have options as to the commute mode they choose—to use transit for their commute.

APPENDIX A – FINAL SURVEY

Transit Pass User Survey

The Center for Transportation and the Environment, on behalf of the Georgia Department of Transportation, is conducting this survey to learn more about your transit experience. By completing the survey, you will be ELIGIBLE FOR A $50 CASH LOTTERY DRAWING or a FREE ONE MONTH TRANSIT PASS. To register for the drawing, please provide your first and last name, employer, and phone number in the space provided.

Please return your completed survey by February 7, 2003. Fold the survey and seal where indicated and place in the mail - no postage required. Your responses will be used for research purposes only and will be kept completely confidential. If you have questions, please call (678) 244-4152.

Please provide your first/last name, employer and phone number in the boxes provided below.

Name (First and Last): _____

Phone Number: _____ Employer: _____

FORM ID# _____

1. Last week, how did you travel from home to work each day? Check only one type of transportation for each day. If you used more than one type on a particular day, check the type you used for the longest distance portion of your trip. Check "Teleworked" if you worked all day during your regularly assigned work hours at home or at another location that is closer to your home than is your usual work location (other than for an off-site meeting).

Type of Transportation	M	T	W	Th	F	Sa	Su
Drove alone (including motorcycle/moped)	❑	❑	❑	❑	❑	❑	❑
Carpool (including with family/household member 16 or older)	❑	❑	❑	❑	❑	❑	❑
Vanpool (with co-workers or others who work nearby)	❑	❑	❑	❑	❑	❑	❑
Rode a bus (MARTA, C-Tran, CCT, Gwinnett Co.)	❑	❑	❑	❑	❑	❑	❑
Rode a train/subway (MARTA)	❑	❑	❑	❑	❑	❑	❑
Bicycled/walked	❑	❑	❑	❑	❑	❑	❑
Teleworked (all day at home or other location closer to home)	❑	❑	❑	❑	❑	❑	❑
Had a compressed workweek day off	❑	❑	❑	❑	❑	❑	❑
Did not work (sick, vacation, holiday, regular day off)	❑	❑	❑	❑	❑	❑	❑
Other (specify) _____	❑	❑	❑	❑	❑	❑	❑

2. Last week, how many days were you assigned to work? Please include days spent teleworking or compressed work days off as assigned work days. However, do not include days that you did not work, such as sick days, holidays or vacation.

_____ (0-7 days.)

3. On average, how many miles do you commute from home to your usual work location, one-way, and how long does it take you to make this trip?

_____ miles AND _____ minutes

4. On days that you carpool or vanpool to work, how many people, including yourself, usually ride in your carpool or vanpool?

❑ Carpool: _____ number of people ❑ Do not carpool

❑ Vanpool: _____ number of people ❑ Do not vanpool

5. On days that you drive to work, do you pay to park? If yes, please indicate how much you pay per month.

❑ No charge, parking is free ❑ $1 – $24 per month ❑ $50 – $74 per month ❑ $100 or more per month

❑ Never drive to work ❑ $25 - $49 per month ❑ $75 – $99 per month

6. How do you travel from home to where you meet the bus or train? (If you use more than one of these types of transportation, respond for the type you use most often.)

❑ Drive alone ❑ Walk ❑ Bicycle ❑ Ride a bus ❑ I'm dropped off/carpool

❑ Other (specify) _____

7. How far do you travel to the location where you meet the bus or train? If you travel more than one mile, please indicate the number of miles.

❑ 1/4 mile or less ❑ 1/2 mile ❑ 3/4 mile ❑ 1 mile

❑ More than 1 mile (specify) _____miles

8. What is your home zip code? _____

9. What is your work zip code? _____

10. How long have you been commuting to work by bus or train? (Report as either months or years, as appropriate.)

_____ months OR _____ years

11. If riding the bus or train were not available to you for your current commute, how would you most likely travel to work? (Please check only one box.)

❑ Carpool/Vanpool ❑ Drive alone ❑ Take a taxi ❑ Walk/Bicycle

❑ Would not be able to work at this location ❑ Would not make the trip ❑ Other _____

CONTINUE ON OTHER SIDE ...

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12. Do you receive a free or discounted weekly or monthly transit pass from your employer or from another organization that offers commuter assistance services?

❑ Yes, a free pass ❑ Yes, a discounted pass ❑ No ❑ Don't know

✻ **The remaining questions pertain to transit riders using free or discounted passes. If you are using a transit pass purchased at full fare, you do not need to answer these questions. Thank you.**

13. Before you started receiving the free or discounted pass, how many days per week did you use each of the following modes to travel to work?

Type of Transportation	0	1	2	3	4	5+
Drove alone (including motorcycle/moped)	❑	❑	❑	❑	❑	❑
Carpool (including with family/household member 16 or older)	❑	❑	❑	❑	❑	❑
Vanpool (with co-workers or others who work nearby)	❑	❑	❑	❑	❑	❑
Rode a bus (MARTA, C-Tran, CCT, Gwinnett Co.)	❑	❑	❑	❑	❑	❑
Rode a train/subway (MARTA)	❑	❑	❑	❑	❑	❑
Bicycled/walked	❑	❑	❑	❑	❑	❑
Teleworked (all day at home or other location closer to home)	❑	❑	❑	❑	❑	❑
Had a compressed workweek day off	❑	❑	❑	❑	❑	❑
Did not work	❑	❑	❑	❑	❑	❑
Other (specify) _____	❑	❑	❑	❑	❑	❑

14. How long have you been buying or receiving the free or discounted pass?

❑ Less than one year ❑ 1-2 years ❑ 3-4 years ❑ 5 or more years

15. Last week, how many days did you use your free or discounted transit pass for the trip to work?

❑ 0 days per week ❑ 2 days per week ❑ 4 days per week
❑ 1 day per week ❑ 3 days per week ❑ 5 or more days per week

16. Last week, how many times did you use the free or discounted pass for a non-commute trip (such as meetings, shopping, personal errands)?

❑ 0 ❑ 1-2 ❑ 3-4 ❑ 5 or more

17. How important was the free or discounted pass in your decision to start using transit?

❑ Didn't receive pass when I started using transit
❑ Not at all important ❑ Somewhat important ❑ Very important

18. How important is the free or discounted pass in your decision to continue using transit?

❑ Not at all important ❑ Somewhat important ❑ Very important

19. If you did not receive the free or discounted pass, how would you travel to work?

Type of Transportation	M	T	W	Th	F	Sa	Su
Drive alone (including motorcycle/moped)	❑	❑	❑	❑	❑	❑	❑
Carpool (including with family/household member 16 or older)	❑	❑	❑	❑	❑	❑	❑
Vanpool (with co-workers or others who work nearby)	❑	❑	❑	❑	❑	❑	❑
Ride a bus (MARTA, C-Tran, CCT, Gwinnett Co.)	❑	❑	❑	❑	❑	❑	❑
Ride a train/subway (MARTA)	❑	❑	❑	❑	❑	❑	❑
Bicycle/walk	❑	❑	❑	❑	❑	❑	❑
Telework (all day at home or other location closer to home)	❑	❑	❑	❑	❑	❑	❑
Would have compressed workweek day off	❑	❑	❑	❑	❑	❑	❑
Would have regular day off	❑	❑	❑	❑	❑	❑	❑
Other (specify) _____	❑	❑	❑	❑	❑	❑	❑

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APPENDIX B – TRAVEL AND EMISSION REDUCTION CALCULATIONS

	TR
Placements	
New	4,633
Retained	25,065
Total	29,698
VT Reduced	
New	(5,696)
Retained	(20,508)
Total	(26,204)
VMT Reduced	
New	(113,227)
Retained	(387,356)
Total	(500,582)
Emissions Reduced	
NOx	(0.4459)
VOC	(0.5165)
Total	(0.9625)

Transit Pass User Survey Impact Calculation

Transit Pass Users	29,698	
Transit Placement Rate		
New placement rate	15.6%	
Retained placement rate	84.4%	(added continued to calculation at request of EPD and GDOT)
Continued placement rate	10.3%	
Estimate number of new placements	4633	= DB registrants x New Placement Rate
Estimate number of retained placements	25,065	= DB registrants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(1.23)	= daily trips reduced / total new placements
Retained VTR Factor	(0.82)	= daily trips reduced / total retained placements

Transit Pass User Survey Impact Calculation

Transit VT Reduced (daily)
(placements x VTR factor)

	(new)	(5,696)
	(retained)	(20,508)

One-way Trip distance (mile) - New	19.9
One-way Trip distance (mile) - Retained	18.9

Transit VMT redeuced (daily)

	(new)	(113,227)
	(retained)	(387,356)

Adjust VT/VMT for SOV access

Percent SOV Access - New	69.8%
Adjusted VT reduced - New	(1,720)
Access distance (miles) - New	9.0
Adjusted VMT reduced - New	(77,331)
Percent SOV Access - Retained	64.7%
Adjusted VT reduced - Retained	(7,239)
Access distance (miles) - Retained	8.5
Adjusted VMT reduced - Retained	(274,456)

Transit Pass User Survey Impact Calculation

Emissions Reduced

Daily

NOx reduced (gm) - new users	(88,931)
VOC reduced (gm) - new users	(103,005)
NOx reduced (gm) - retained users	(315,624)
VOC reduced (gm) - retained users	(365,575)

Yearly

NOx reduced - new users	(22,232,680)
VOC reduced - new users	(25,751,244)
NOx reduced - retained users	(78,905,974)
VOC reduced - retained users	(91,393,702)

KG (Daily)

NOx reduced - new users	(88.93)
VOC reduced - new users	(103.00)
NOx reduced - retained users	(315.62)
VOC reduced - retained users	(365.57)

Tons (Daily)

NOx reduced - new users	(0.0980)
VOC reduced - new users	(0.1135)
NOx reduced - retained users	(0.3479)
VOC reduced - retained users	(0.4030)

Total Emissions Reduced (Tons/Day)

NOx reduced - (new + retained users)	(0.4459)
VOC reduced - (new + retained users)	(0.5165)

APPENDIX B-8 – THE CLEAN AIR CAMPAIGN OCTOBER 2002-FEBRUARY 2003 CASH FOR COMMUTER'S PROGRAM SURVEY FINAL REPORT

EVALUATION OF THE EFFECTIVENESS OF PROGRAMS CONTAINED IN THE "FRAMEWORK FOR COOPERATION TO REDUCE TRAFFIC CONGESTION AND IMPROVE AIR QUALITY"

PHASE THREE

THE CLEAN AIR CAMPAIGN
OCTOBER 2002 – FEBRUARY 2003 CASH FOR COMMUTERS PROGRAM
SURVEY FINAL REPORT

PREPARED FOR:
GEORGIA DEPARTMENT OF TRANSPORTATION

PREPARED BY:
CENTER FOR TRANSPORTATION AND THE ENVIRONMENT

IN ASSOCIATION WITH

CIC RESEARCH, INC.,
ESTC,
AND
LDA CONSULTING

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EXECUTIVE SUMMARY

INTRODUCTION

This report presents the results of a survey of commuters who enrolled in the Cash for Commuters (CFC) program. CFC is a regional incentive program implemented by The Clean Air Campaign between October 2002 and February 2003 to encourage solo commuters to use commuting alternatives. Commuters earned up to $180 cash over a 90-day period, or $3 for each day they used a commute alternative. The survey, conducted in July 2003, assessed short-term behavior changes associated with the incentive program. The report also presents the estimated travel and emission reductions generated by program participants.

The survey is one of several surveys conducted as part of a broad research and measurement program sponsored by the Georgia Department of Transportation known as the "Evaluation of the Effectiveness of Programs contained in the Framework for Cooperation to Reduce Traffic Congestion and Improve Air Quality." The research and measurement program evaluates the effectiveness of programs aimed at changing individual and employer behavior about the voluntary use of alternative transportation. These programs help reduce traffic congestion and improve air quality in the Atlanta 13-county nonattainment area[1].

KEY FINDINGS – SHORT TERM BEHAVIOR CHANGES

The key findings focus on participants' *primary* alternative commute mode use (primary alternative), both during their participation in the CFC program and their continued use of this mode three to six months after their participation in the program ended. The primary alternative commute mode is the alternative mode used most frequently by the participant. Some CFC participants used additional or multiple alternative modes, which are accounted for in the travel and emission reduction estimates presented below.

During Enrollment in CFC Program

- Survey respondents used alternative modes an average of 4.3 days per week and used their primary alternative an average of 4.15 days per week.
- The proportion of drive alone weekly trips during the enrollment period was 13.9%, compared to 83.7% pre-enrollment.
- Carpool trips made up the largest proportion of weekly trips (54.4%), followed by transit (32.8%).

Post Enrollment - Three to Six Months After Participation in CFC Program Ended

- Seven in ten respondents (71%) continued to use the primary alternative they started using at the beginning of their three-month incentive program period.
- Survey respondents used commute alternatives an average of 3.12 days per week at the time of the survey. They used their primary alternative on average 2.85 days per week.
- Carpool trips made up the largest proportion of weekly trips (34.7%), followed by transit (18.9%). The proportion of drive alone weekly trips was 37.8%.
- Respondents cited saving money (54%) and convenience (39%) as the primary reasons for continued use of alternative modes following their completion of the CFC incentive period.

[1] Thirteen (13) county nonattainment area includes Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale counties.

CFC Program Influence

- Nearly half (45%) of respondents stated the $3 a day CFC program was one factor leading to their decision to start using their primary alternative. Fifteen percent cited only the incentive program, while about 30% cited the incentive along with other factors.
- Respondents also cited saving money (30%), finding a carpool partner (23%), stressful driving situations (12%), and traveling on congested corridors (11%) as other important factors in their decision to start using an alternative mode.
- Nearly one-third (30%) of respondents said they would have been "very likely" to start using their primary alternative without the CFC program, while 54% said they would have been "somewhat likely."

Respondents Stopping Primary Commute Alternative Use After Completion of CFC Program

- About one-quarter (28%) of survey respondents *stopped* using their primary alternative after participating in the CFC program period, discontinuing use on average after seven weeks.
- Respondents stopped using their primary alternative mainly because of schedule or work location changes (50%) or because they lost their carpool partner (36%).

Use of Commute Alternative Modes Prior to Enrolling in CFC Program

- Program guidelines prohibit commuters from participating in the CFC program if they already use a commute alternative as a typical means for traveling to work. About 27% of the survey participants (80 respondents) typically used a commute alternative at least one day per week prior to their participation in the incentive program. However, these participants did show a willingness to try different commute alternatives, with only 7% (21 respondents) continuing to use their previous alternative mode during their CFC enrollment program.

POST-ENROLLMENT TRAVEL AND EMISSION REDUCTIONS

Four impact measures are used to determine the travel and emission reductions achieved by the CFC program: alternative commute placements and reductions in vehicle trips, vehicle miles traveled (VMT), and nitrogen oxide (NO_x) and volatile organic compounds (VOC) emissions. The findings for these measures represent the impact of the CFC program three to six months after CFC program participants completed their program enrollment period (post-enrollment period). The measures are presented in Table A and briefly explained below.

Participant Placement Rates and Placements

The percentage of program registrants making a commute change to an alternative mode is defined as a *placement rate*. The placement rate reflects survey respondents who started using new alternative modes when they enrolled in the program and continued to use these modes after their participation in the program ended. As mentioned previously, placement rates are not limited to a primary alternative; placement rates account for all commuting alternatives used by a commuter.

The overall placement rate, when multiplied by the number of commuters registered in the CFC program, yields the number of registrants "placed" in alternative modes in connection with the program. Approximately 1,800 CFC registrants have been placed in new commute alternatives.

TABLE A: DAILY TRAVEL AND EMISSION REDUCTIONS MEASURES

Placement Rate	Alternative Commute Placements Per Day	Vehicle Trips Reduced Per Day	VMT Reduced Per Day (miles)	NO_x Reduced Per Day (tons)	VOC Reduced Per Day (tons)
93%	1,806	1,294	30,407	0.0331	0.0383

Note: The placement rate does not equal 100% because a small percentage of participants used an alternative commute mode as part of their typical weekly commute prior to enrolling in the program and did not switch to a new alternative mode during the program.

Vehicle Trips and VMT Reduced

Vehicle trips reduced are measured by determining a vehicle trip reduction (VTR) factor. This factor represents the number of vehicle trips no longer made for each survey respondent placed in an alternative mode. The VTR factors calculated from the survey data are:

- Carpool VTR factor: 0.56 daily one-way trips reduced per placement
- Vanpool VTR factor: 0.99 daily one-way trips educed per placement
- Transit VTR factor: 1.41 daily one-way trips reduced per placement
- Bike/walk VTR factor: 0.94 daily one-way trips reduced per placement
- Telework VTR factor: 0.58 daily one-way trips reduced per placement

These factors, when multiplied by the number of placements in their respective mode categories, equal a total daily vehicle trip reduction of 1,294 trips. Multiplying the number of vehicle trips reduced by the average commute distance recorded for each survey respondent results in a total daily VMT reduction of 30,407 miles.

Emissions Reduced

Emissions benefits, defined as tons of pollutants reduced, are calculated by multiplying regional emission factors provided by the Georgia Department of Natural Resources, Georgia Environmental Protection Division by the amount of VMT reduced. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of NO_x and VOC is of particular concern in the region as these pollutants are the primary components in the formation of ozone. The emissions reduced equal:

- NO_x 0.0331 tons per day reduced
- VOC 0.0383 tons per day reduced

} 0.0714 tons pollutants per day reduced

CONCLUSIONS

The CFC $3 a day incentive program was effective in encouraging commuters to begin and continue using commute alternatives. Seven in ten survey respondents continued to use their primary commute alternative three to six months after the program ended. Nearly half of the respondents stated the incentive played a factor in their decision to start using their primary commute alternative. Some of the participants who stopped using their primary alternative at the end of their program enrollment period began using other alternative modes for the first time. This finding suggests CFC program participation increased commuters' awareness of commuting alternatives and made them more receptive to using a range of alternative modes.

RECOMMENDATIONS

The ultimate objective of the CFC program is to encourage commuters who are driving alone to shift to alternative commute modes. The survey findings establish that the program is having the desired effect. It is also clear that emission reductions associated with the CFC program are substantial. The implementation of similar programs would be expected to accomplish similar results. The following actions would help enhance the CFC program:

- Continue to track the participants of the October 2002 - February 2003 Cash for Commuters program to assess their continued use of commute alternatives over a longer time period. Insight into participants' long-term behavior changes will help provide guidance on the ability of the CFC program to produce sustained alternative mode use and, therefore, sustained transportation and air quality benefits.

- The high rate of respondents (93%) who continued using an alternative mode following completion of their program enrollment period suggests it is unnecessary to contact participants immediately after their enrollment period to determine if they need further assistance to maintain commute alternative use. However, providing additional information to participants at program enrollment that will encourage continued alternative mode use beyond the participation period may be helpful. For example, it might be useful to provide information about how to find a new carpool partner or information on other commuting alternatives, should a commuter lose their carpool partner following participation in the program.

- Continue to carefully check the accuracy of travel applications and logs submitted by participants. Program guidelines prohibit commuters from participating in the CFC program if they already use a commute alternative as a typical means for traveling to work. It may be necessary to improve the education of employer supervisors about eligibility criteria. The prior use of alternative modes by one-quarter of the respondents (27%) before enrolling in the program may be attributed to commuters misinterpreting program rules or participants providing false information.

- Continue to implement periodic surveys of Cash for Commuters program participants, including participants of the 2003 Smog Season Cash for Commuters Program Survey, to assess short- and long- term behavior changes and program influences. When appropriate, comparisons should be made between previous Cash for Commuters survey findings to gain further insight into the factors motivating commute changes.

SECTION 1 OVERVIEW

PURPOSE OF THE REPORT

The purpose of the survey was to assess short-term travel behavior changes associated with the Cash for Commuters (CFC) incentive program. Short-term is defined as three to six months after a commuter completed the incentive program. They survey also collected data to examine other key characteristics of program participants, including the role the $3 a day incentive played in their decision to use a commute alternative. This report presents a summary of the survey findings, including the travel and emission reductions estimated for program participants.

ORGANIZATION OF REPORT

The report is divided into six sections.

Section 1 – Purpose and organization of the report
Section 2 – Description of Cash for Commuters program
Section 3 – Description of the survey and sampling methodology
Section 4 – Results of the survey
Section 5 – Travel and emission reductions
Section 6 – Conclusions and recommendations

The report also includes appendices with the final survey instrument and the detailed impact calculation spreadsheets.

SECTION 2 CASH FOR COMMUTERS PROGRAM DESCRIPTION

INTRODUCTION

The Clean Air Campaign implemented its first regional commute assistance incentive program, the Cash for Commuters (CFC) program between October 2002 and February 2003 to encourage drive alone commuters to switch to an alternative. Commuters could enroll in the program through the month of February 2003. More than 2,550 metropolitan Atlanta commuters enrolled in the program. As of late August 2003, more than 1,800 commuters had submitted travel logs and received their cash incentive, with The Clean Air Campaign distributing more than $255,800 in incentives.

The Clean Air Campaign launched its second CFC program in May 2003. This report includes findings from the first CFC program only. There are plans to assess the short-term behavior changes associated with this second group of CFC participants in the future.

ELIGIBILITY

Commuters are eligible to participate in the CFC program if they currently live in the Atlanta 13-county nonattainment area. To obtain the incentive offered by the program, they must use an eligible commute alternative at least 15 times over a 90-day period. Eligible commuting alternatives include carpooling, transit (bus and train), cycling, walking, or teleworking. Commuters are not eligible to participate in the CFC program if they have used any of these commuting alternatives more than five times in the 90-day period immediately prior to enrolling in the program.

PROGRAM FEATURES

Commuters register for the program by completing a registration form. Commuters are also required to submit a travel log at the end of their participation period documenting the number of days they commuted to work using an alternative mode. The commuter's employer supervisor is required to verify the commuter's participation by signing the travel log.

INCENTIVES

Commuters can earn up to $180 cash over a 90-day period, or $3 for each day they use an alternative. As noted earlier, participants must use an alternative mode at least 15 times over this period. If they do not meet this minimum requirement, they do not receive any incentive.

SECTION 3 DATA COLLECTION

This section briefly describes the Cash for Commuters (CFC) survey methodology.

QUESTIONNAIRE DEVELOPMENT AND ADMINISTRATION

The measurement team developed the telephone survey questionnaire with input from The Clean Air Campaign. CIC Research, Incorporated (CIC), the survey administrator, conducted the survey from its in-house telephone facility in San Diego, California using a Computer Assisted Telephone Interviewing System (CATI). CIC conducted the survey between July 22 and August 7, 2003.

SAMPLE PREPARATION

CIC drew a random sample from a CFC participant list provided by the Clean Air Campaign on July 10, 2003. The sample included participants who enrolled in the program between October 2002 and February 2003 and who completed the program between January 2003 and May 2003. This timeframe insured that participants had at least two months after they completed the program to establish their post-enrollment commute mode. The only qualifying screener required of respondents was that the respondent could remember their participation in the program.

A total of 302 CFC program participants completed the survey. The overall confidence level for the full survey sample is +/- 4.95% in 95 out of 100 cases (95% confidence level).

SURVEY PRE-TEST

CIC conducted a total of 25 pretest surveys on July 22, 2003. After examining and discussing the results with the measurement team, CIC began interviewing the full sample with minor questionnaire modifications.

SECTION 4 SURVEY RESULTS

INTRODUCTION

The survey collected the following data from each survey respondent:

- Current commute modes (mode at the time the survey was conducted, three to six months after completing the program)
- Commute modes during participation in the program (primary commute alternative)
- Commute modes prior to participation in the program
- Commute characteristics (typical work schedule and commute distance)
- Reasons for reducing, stopping, or continuing use of primary commute alternative after participation in the program ended
- Influence of CFC and other commute information or services on program participation
- Demographic data (gender, income, ethnicity, etc.)

Survey results presented in the tables and graphs on the following pages show respondent percentages. The tables also show the raw number of respondents answering the question (e.g., n=302). As mentioned previously, the confidence level for the full sample (302 respondents) is +/- 4.95 percentage points in 95 out of 100 cases. Many of the tables include smaller sub-samples from the survey, which result in wider statistical variance at the 95% confidence level. For example, data presented on CFC participants who continued using alternative modes after their enrollment period ended (213 participants) represents a confidence level of +/- 6.2 percentage points in 95 out of 100 cases. Confidence levels for questions that were answered by fewer than 302 respondents are noted at the bottom of the table or graph.

COMMUTE ALTERNATIVE USE

Commute alternative use was defined for each participant for three time periods: at the time of the survey (post-enrollment), the time while participating in the CFC program (during enrollment), and the time prior to enrolling in the program (pre-enrollment). Survey interviewers tracked all alternative mode use for the three time periods, but assigned each respondent one "primary" alternative mode. The primary alternative mode is defined as the alternative mode used most frequently during a typical week for each time period.

Survey interviewers focused on a primary commute alternative to simplify the survey questions related to continued alternative mode use and the associated CFC program influence. Other alternative modes used by participants are accounted for in the commute mode split and alternative commute days presented in this section. The vehicle trip reduction rate, which is used to determine the overall travel and emission reductions, also accounts for other alternative mode use. The vehicle trip reduction rate and travel and emission reductions are presented in Section 5 of this report.

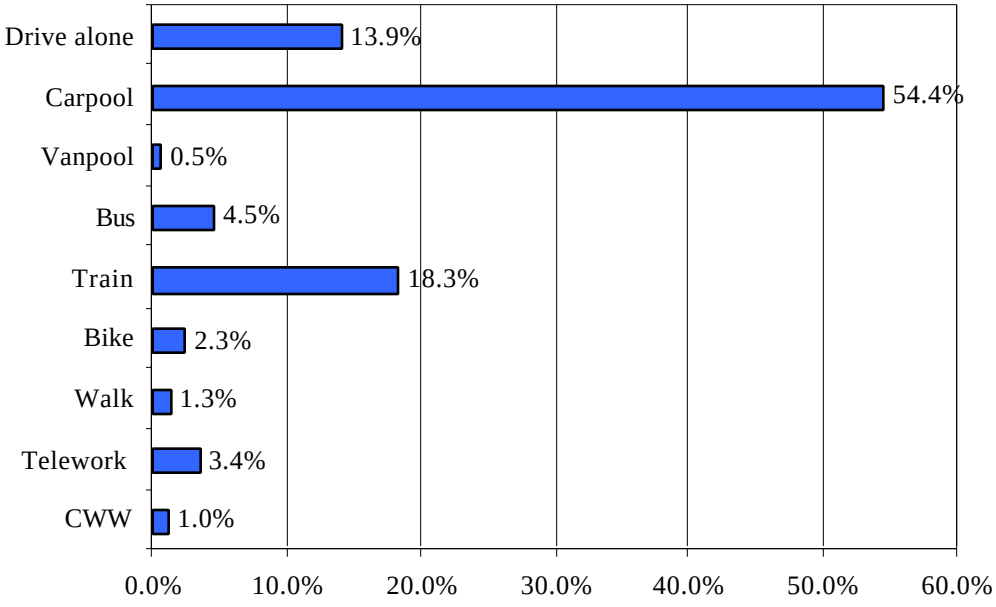
During Enrollment - During CFC Participation Period

Alternative Commute Days - On average, survey respondents used an alternative mode 4.3 days per week during their program participation period. They used their *primary* commute alternative 4.15 days per week.

Commute Mode Split – Figure 1 summarizes the mode split as the percentage of weekly trips made for all respondents during their participation in the incentive program. As shown, carpooling made up the largest proportion of weekly trips (54.4%). Transit made up the second largest proportion of

weekly trips, at 32.8%. The proportion of drive alone weekly trips during the participation period was 13.9%. This percentage is significantly lower than the regional commute population mode split in which 82.3% of weekly trips were drive alone commuters.[2]

FIGURE 1: DURING ENROLLMENT - COMMUTE MODE SPLIT BY PERCENTAGE OF WEEKLY TRIPS
(n=302)



CWW = Compressed Work Week

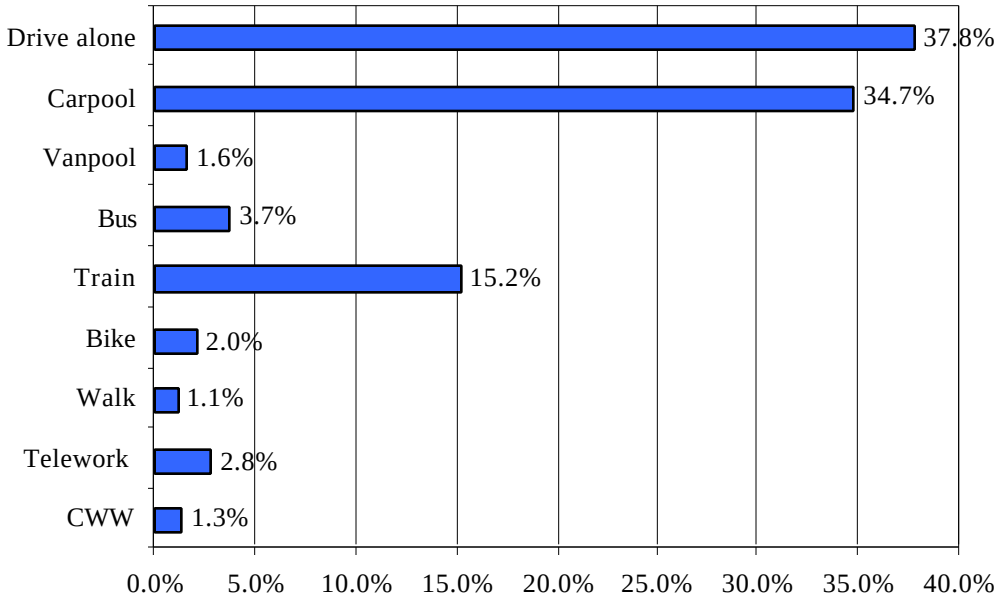
Post Enrollment - Three to Six Months After CFC Participation Ended

Alternative Commute Days – In comparison to their program participation period, participants were using commute alternatives slightly less frequently at the time of the survey, three to six months following program completion. Program participants were using commute alternatives 3.12 days per week and using their *primary* commute alternative an average of 2.85 days per week. The frequency of alternative mode use at the time of the survey was still significantly higher than prior to enrolling in the program (0.75 days per week for overall commute alternative use and 0.60 days per week for primary commute alternative use).

Commute Mode Split by Percentage of Weekly Trips - Figure 2 summarizes the mode split as the percentage of weekly trips made for all survey respondents at the time of the survey. As shown, drive alone trips made up the largest percentage of weekly trips; however, the proportion of total trips comprised by drive alone still is significantly lower than pre-enrollment (37.8% compared to 83.7%) and significantly lower than for the regional commute population (82.3%).[3] The largest percentages of alternative mode weekly trips for the post-enrollment period were made by carpool (34.7%) and transit (18.9%).

[2] November 2002 Regional Switcher Survey
[3] November 2002 Regional Switcher Survey

FIGURE 2: POST ENROLLMENT - COMMUTE MODE SPLIT BY PERCENTAGE OF WEEKLY TRIPS
(n=302)



CWW = Compressed Work Week

Factors Leading CFC Participants to Start Using Primary Commute Alternatives

Nearly half of the respondents (45%) stated that the $3 a day CFC incentive played a factor in their decision to start using their primary commute alternative. As shown in Table 1, other frequently cited reasons included saving money (30%) and finding a carpool partner (23%).

The measurement team conducted further analysis on the responses in an effort to single out the number of respondents who solely relied on the CFC incentive to make a commute change. Approximately 16% of respondents cited only the $3 incentive program, while about 30% cited the incentive and other factors. These findings suggest receiving a financial incentive was the key factor for some respondents, but for other respondents the incentive was one of several factors they considered before making a commute change. For example, other factors like the ability to find a carpool partner, stressful driving situations, or traveling on congested corridors also played a role.

TABLE 1: FACTORS LEADING CFC PARTICIPANTS TO START USING PRIMARY COMMUTE ALTERNATIVES
(n=302)

Reasons	Percentage
Availability of the $3 daily Cash for Commuters Program	45%
To save money	30%
Found carpool partner	23%
Less stressful than driving	12%
Congestion level	11%
Reduce commute time or distance	8%
Convenience, transit close by home or work	8%
HOV/toll road	8%
Reduce wear and tear on car	7%
Changed jobs	6%
Moved	5%
Reduce pollution or protect environment	5%
Exercise	2%
Tired of driving	2%
Other employer incentive	0.7%
Other	7.6%

Continued Use of Primary Commute Alternatives After CFC Program Completion

At the time of the survey, 71% of the CFC participants were still using the primary commute alternative they used during program enrollment. Participants had been using these commute alternatives for an average of 22.5 weeks. Some of these respondents continued using the alternative at the same level or at an increased frequency (more days per week). Others reduced their frequency of use. A breakdown of their level of use is presented below:

- 43% continued at the same frequency (131 people)
- 9% continued but at an increased frequency (26 people)
- 19% continued but at a reduced frequency (56 people)

Primary Reasons for Continuing Primary Commute Alternative Use After CFC Program Completion

As shown in Table 2, participants most frequently stated thay continued to use their primary commute alternatives because of the cost savings (54%) and convenience (39%) of the modes. In addition, nearly one-quarter of respondents (22%) said they enjoyed using the alternative mode.

TABLE 2: PRIMARY REASONS FOR CONTINUING PRIMARY COMMUTE ALTERNATIVE USE
(n=157)

Reasons	Percentage
Too expensive not to/save money	54%
More convenient for me to continue	39%
I enjoy using the alternative mode	22%
Saves wear and tear on my car	17%
Traffic on freeway is worse	14%
Less stress	14%
HOV/toll lanes	11%
Faster/less commute time	9%
I became more environmentally aware or responsible	8%
People I carpool with kept the same number of days they carpool	4%
Saves on parking	4%
I no longer have a car or parking available to me	4%
I like the incentives my employer offers/offered	3%

Note: 95% Confidence Level = +/-7.3%

Primary Reasons for Reducing Primary Commute Alternative Use After CFC Program Completion

Schedule and work location changes were the most frequently stated reasons why CFC participants reduced the frequency of use for their primary commute alternative after completing the program. As shown in Table 3, more than four in ten (43%) respondents cited schedule and work location changes.

TABLE 3: PRIMARY REASONS FOR REDUCING NUMBER OF DAYS USING PRIMARY COMMUTE ALTERNATIVES
(n=56)

Reasons	Percentage
My work schedule/work location changed	43%
Lost my carpool partner	21%
I had other commitments to attend to before or after work	16%
I wasn't receiving start-up program incentive anymore	11%
I had errands to run during my work day	9%
Too inconvenient	5%
I don't like to use a commute alternative	2%
Too expensive	2%

Note: 95% Confidence Level = +/-12.8%

Effectiveness of CFC Program

Overwhelmingly, respondents said the CFC program was important to their decision to start using an alternative mode. Forty-six percent said the CFC program was "very important" to their decision, while about 44% said it was "somewhat important". One in ten (10.6%) said the incentive program was not important.

When asked how likely they would have been to start using the commute alternative without the CFC program, 30% said they would have been "very likely" and 54% said they would have been "somewhat likely." A small percentage (16%) said they would have been "not likely at all" to start using alternative modes in the absence of the program. These findings suggest incentives alone may not be sufficient to change travel behavior for most commuters. Further, it appears that a large percentage of respondents were considering trying a commute alternative.

Survey respondents who indicated the $3 a day incentive was the only factor leading to their alternative commute use, but who indicated a strong likelihood to start using a commute alternative even without the incentive were probed about these seemingly contradictory responses. Their responses support the idea that many of the participants were on the verge of trying a commute alternative and that the CFC incentive was the final motivator they needed. A summary of their responses include

- "It was the final incentive I needed to participate"
- "It was something I wanted to do all along"
- "The incentive encouraged me and a person I already carpooled with occasionally to carpool more"
- "The incentive motivated me to look for a carpool partner"

Survey interviewers also asked participants if they had used any other commute information or service, other than the $3 per day incentive, provided by an employer or another organization. As shown in Table 4, approximately 12% of participants said they had used other commute information or services, with about 4% citing a discounted or free transit pass.

TABLE 4: INFORMATION OR SERVICES USED OTHER THAN $3 A DAY INCENTIVE
(n=37)

Information or Service Used	Percentage
Discounted transit passes or free transit passes	4%
Vanpool or carpool subsidy or cash incentive	2%
Carpooling or vanpooling information	1%
Ridematching service or matchlist	1%
Guaranteed Ride Home	1%
Preferential parking for carpools or vanpools	<1%
Bicycle racks or other bike services	<1%

Note: 95% Confidence Level = +/-15.9%

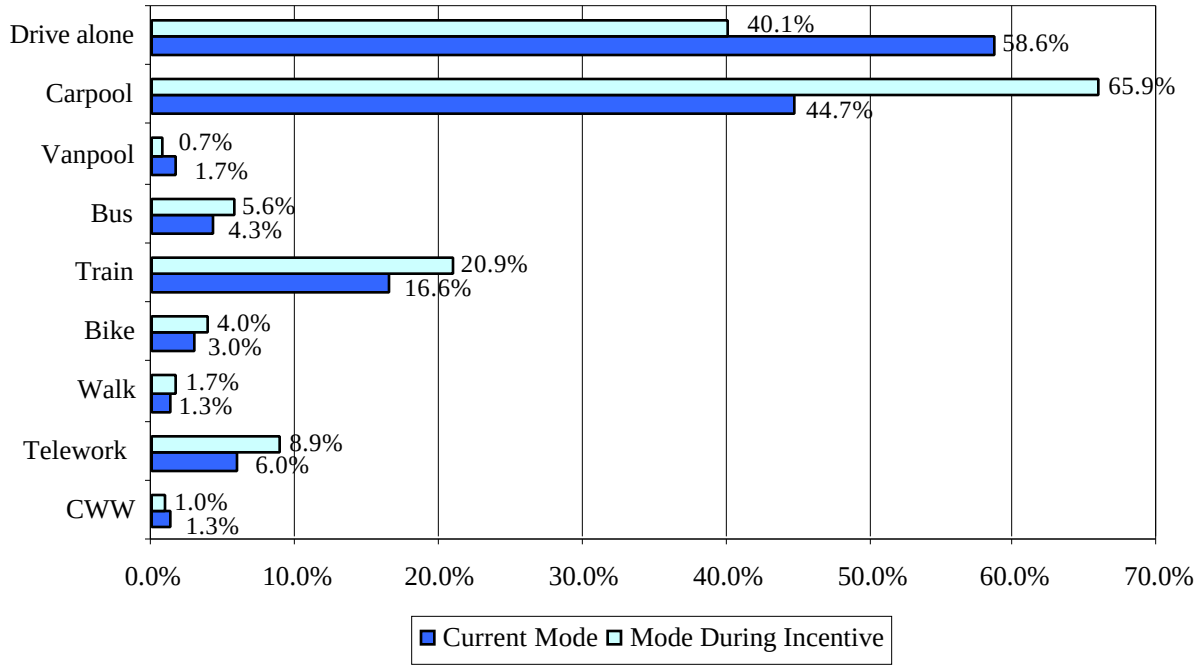
When asked if the commute information or service received was more important than the $3 per day incentive in influencing their decision to start using their primary commute alternative, 91% said the

$3 per day incentive was the most important. The 9% of respondents who said another service was more important, cited services such as the Guaranteed Ride Home program, discounted or free transit passes, and carpool or vanpool subsidies or cash incentives.

Frequency of Alternative Mode Use

As shown in Figure 3, more respondents carpooled than used any other form of commute alternative both during and after the incentive period (65.9% and 44.7%, respectively). Transit was the second most frequently used commute alternative, with 21.9% of respondents using this mode during participation in the CFC program and about 16.6% using this mode following the end of their program enrollment. Use of all other alternative modes was considerably lower. Of the respondents who still used their primary commute alternative, the majority (61%) were carpoolers.

FIGURE 3: DURING AND POST- ENROLLMENT - COMMUTE MODE SPLIT BY FREQUENCY OF USE
(n=302)



Total will add to more than 100%; multiple responses permitted.
CWW = Compressed Work Week

Commuters Who Stopped Using Primary Commute Alternatives After Completion of CFC Program

About one quarter (28%) of survey respondents *stopped* using their primary commute alternative mode after their participation period ended, discontinuing use on average after seven weeks. Another 2% (6 respondents) said they use their primary commute alternative occasionally (about 2 times per month). Of these 89 people, several did not stop alternative mode use entirely; about 4% (13 respondents) started using another alternative mode for the first time.

Table 5 shows the primary reasons participants stopped using their primary commute alternative. As was the case for participants who continued but reduced their frequency of alternative mode use, work schedules and location changes were the primary reason respondents stopped using the alternative (50%). Losing a carpool partner (36%) was the second most prevalent reason cited by participants.

TABLE 5: PRIMARY REASONS FOR STOPPING ALTERNATIVE MODE USE (AFTER PARTICIPATION PERIOD ENDED)
(n=83)

Reasons	Percentage
My work schedule/work location changed	50%
Lost my carpool partner	36%
I had other commitments to attend to before or after work	6%
Too inconvenient	7%
I had errands to run during my work day	4%
I wasn't receiving start-up program incentive anymore	2%
I started using another alternative mode	2%
Too expensive	2%

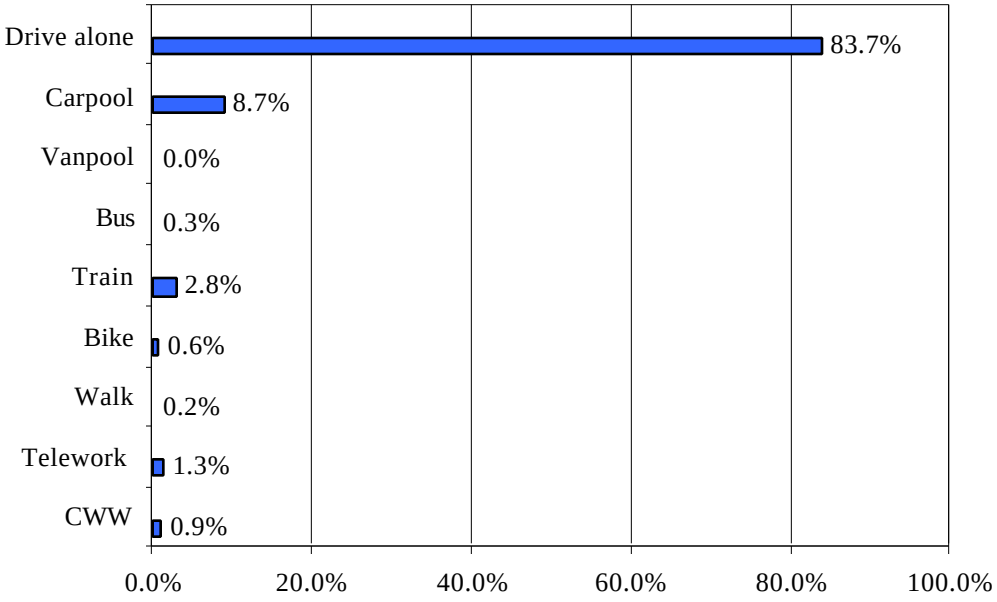
Note: 95% Confidence Level = +/- 10%

Commute Mode Use Prior to CFC Program Participation Period

Figure 4 summarizes the mode split as the percentage of weekly trips made for all survey respondents during a typical commute week prior to their participation in the incentive program. The largest percentage of weekly trips during the pre-enrollment period was drive alone trips (83.7%).

These findings reveal 27% of participants (80 respondents) typically used a commute alternative at least one day per week prior to their participation in the incentive program. Only about 7% of participants (21 respondents) used their pre-enrollment alternative mode as their primary commute alternative during their CFC enrollment period. As mentioned previously, program eligibility guidelines prohibit commuters from participating if they are already using a commute alternative to travel to work. These commuters either misinterpreted program rules or provided false information about their previous use of alternative modes at the time of program enrollment.

FIGURE 4: PRE-ENROLLMENT - COMMUTE MODE SPLIT BY PERCENTAGE OF WEEKLY TRIPS
(n=299)



Note: 95% Confidence Level = +/- 5.0%
CWW = Compressed Work Week

OTHER COMMUTE DATA

Distance from Home to Work

Table 6 presents the distribution of one-way commute distances for survey respondents. These commuters had a wide range of commute distances, ranging from less than one mile to more than 70 miles one-way. The average one-way commute distance for respondents was 24.6 miles.

About 8% of respondents commute five miles or less to work, while more than half (52%) traveled between 21 and 50 miles. About 3% had one-way commute distances greater than 50 miles.

TABLE 6: ONE-WAY COMMUTE DISTANCE (MILES)
(n=302)

Number of Miles	Percentage	Number of Miles	Percentage
5 miles or less	8%	21 to 30 miles	26%
6 to 10 miles	9%	31 to 50 miles	25%
11 to 15 miles	11%	More than 50 miles	3%
16 to 20 miles	17%	**Average distance**	**24.6 miles**

Work Schedules

Survey findings revealed only minor fluctuations in work schedules for survey respondents during the three time periods examined in the survey: post-enrollment, during enrollment, and pre-enrollment

Current Work Schedule (Three to Six Months after Program Participation Ended) - The majority of respondents (99%) worked full time at the time of the survey. Only a small percentage (1%) said they worked part time. Of those who worked full time, 94% worked a standard, five-day work week. Approximately 3% worked a 4-40 schedule (forty-hour week in four days) and another 4% worked a 9-80 schedule (eighty hours in nine-day period over two work weeks).

Work Schedule During Incentive Participation Period- All but one respondent worked full time during their participation in the incentive program. One respondent worked part time. Of those who worked full time, 95% worked a standard, five-day work week. Approximately 2% worked a 4-40 schedule (forty-hour week in four days) and another 3% worked a 9-80 schedule (eighty hours in nine-day period over two work weeks).

Work Schedule Prior to Program Participation Period – All but one respondent worked full time prior to enrolling in the incentive program. One respondent worked part time. Of those who worked full time, 95% worked a standard, five-day work week. Work schedules for the remaining 5% of respondents were divided equally between a 4-40 schedule (forty-hour week in four days) and a 9-80 schedule (eighty hours in nine-day period over two work weeks).

DEMOGRAPHIC PROFILE OF CFC SURVEY PARTICIPANTS

Gender

Approximately 54% of the survey respondents were female and 46% were male.

Ethnic Background

As shown in Table 7, Caucasians and African-Americans represented the two largest ethnic group categories of survey respondents, 73% and 22% respectively.

TABLE 7: ETHNIC BACKGROUND
(n=302)

Ethnic Group	Percentage	Ethnic Group	Percentage
Hispanic	1%	Asian	3%
Caucasian	73%	Other/Mixed	1%
African-American	22%		

Income

Table 8 provides a breakdown of survey respondents by household income category. About eight in ten respondents had household incomes of $40,000 or more and 36% had incomes of $80,000 or more.

TABLE 8: INCOME GROUP
(n=302)

Income	Percentage	Income	Percentage
Less than $20,000	>1%	$40,000 – 59,999	28%
$20,000 – 29,999	5%	$60,000 – 79,999	18%
$30,000 – 39,999	13%	$80,000 or more	36%

Employer Type

Table 9 shows the distribution of survey respondents by their employer type. Approximately two-thirds of respondents (67%) worked for private industry, while 25% percent worked for a federal, state, or local government agency. About one in ten (8%) worked for a non-profit organization.

TABLE 9: EMPLOYER TYPE
(n=302)

Type of Employer	Percentage	Type of Employer	Percentage
Federal government	5%	Private industry	67%
State/local government	20%	Non-profit organization	8%

CASH FOR COMMUTERS PROGRAM PARTICIPATION END DATE

The majority of survey respondents (89%) recalled the month their participation period ended. As shown in Table 10, almost two-thirds (63%) completed the program more than three months before they participated in the survey. About 16% completed the program two months before participating in the survey and about 10% completed the program about a month before participating in the survey.

TABLE 10: CFC SURVEY SAMPLE PARTICIPATION PERIOD END DATE (MONTH)
(n=302)

Month	Percentage
December	6%
January	18%
February	16%
March	10%
April	13%
May	16%
June	10%
Don't Remember	11%

SECTION 5 TRAVEL AND EMISSION REDUCTIONS

PROGRAM IMPACT MEASURES

The measurement team used four impact measures to calculate travel and air quality emissions reductions for the Cash for Commuters program. The findings for these measures represent the impact of the CFC program three to six months after CFC program participants completed their program enrollment period (post-enrollment period). The measures are presented in Table 11 and briefly explained below.

- Placement Rates and Placements – Proportion and number of participants who switched to alternative modes
- Vehicle Trip Reductions – Number of vehicles removed from the road daily by participants who made a shift to an alternative mode
- Vehicle Miles of Travel (VMT) Reductions – Number of miles of travel removed from the road daily by participants who made a shift to a alternative mode
- Emission Reductions – Daily reductions in emissions of ozone precursors VOC and NO_x, expressed in terms of tons per day reduced

TABLE 11: CFC PROGRAM TRAVEL AND EMISSION REDUCTIONS MEASURES

Mode	Placement Rates Per Day	Placements Per Day	Vehicle Trips Reduced Per Day	VMT Reduced Per Day	NO_x Reduced Per Day	VOC Reduced Per day
Carpool	60.3%	1,160	575	14,743	0.0179	0.0208
Vanpool	0.7%	13	12	399	0.0004	0.0005
Transit	23.8%	460	592	14,038	0.0132	0.0153
Bike/Walk	4.3%	83	69	267	0.0003	0.0004
Telework	4.3%	90	45	991	0.0013	0.0015
Total	93.4%	1,806	1,294	30,438	0.0332	0.0384

Note: The placement rate does not equal 100% because a small percentage of participants used an alternative commute mode as part of their typical weekly commute prior to enrolling in the program and did not switch to a new alternative mode during the program.

Participant Placement Rates and Placements

The percentage of program registrants making a commute change to an alternative mode is defined as a "placement rate." The placement rates reflect survey respondents who started using new alternative modes when they enrolled in the program and continued to use these modes after their enrollment in the program ended. As mentioned previously, placement rates are not limited to a primary commute alternative; placement rates account for all alternative modes used by a commuter.

The placement rate, when multiplied by the number of commuters registered in the CFC program, yields the number of registrants "placed" in alternative modes in connection with the program. Approximately 1,800 CFC registrants have been placed in new commute alternatives.

Vehicle Trips and VMT Reduced

Vehicle trips reduced are measured by determining a vehicle trip reduction (VTR) factor. This factor represents the average number of vehicle trips reduced per day by each survey respondent placed in an alternative mode. The VTR factors calculated from the survey data are:

- Carpool VTR factor: 0.56 daily one-way VT reduced per placement
- Vanpool VTR factor: 0.99 daily one-way VT reduced per placement
- Transit VTR factor: 1.41 daily one-way VT reduced per placement
- Bike/walk VTR factor: 0.94 daily one-way VT reduced per placement
- Telework VTR factor: 0.58 daily one-way VT reduced per placement

The VTR factors, when multiplied by the number of placements in their respective categories, equal a total daily vehicle trip reduction of 1,294 trips. Multiplying the number of vehicle trips reduced by the average commute distance recorded for each survey respondent results in a total daily vehicle miles traveled (VMT) reduction of 30,407 miles.

Emissions Reduced

Emissions benefits, defined as tons of pollutants reduced, are calculated by multiplying regional emission factors provided by the Georgia Department of Natural Resources, Georgia Environmental Protection Division by the amount of VMT reduced. Thirteen counties in the metropolitan Atlanta region do not meet federal air quality standards for ozone. Reducing emissions of NO_x and VOC is of particular concern in the region as these pollutants are the primary components in the formation of ozone. The emissions reduced equal:

- NO_x 0.0331 tons per day reduced
- VOC 0.0383 tons per day reduced

} 0.0714 tons pollutants per day reduced

SECTION 6 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The CFC $3 a day incentive program was effective in encouraging commuters to begin and continue using commute alternatives. Seven in ten (71%) survey respondents continued to use their primary commute alternative three to six months after the program ended.

Nearly half of the respondents (45%) stated the incentive played a factor in their decision to start using their primary alternative commute mode. Survey findings also revealed that receiving a financial incentive was one of several factors respondents considered before deciding to make a commute change. The desire to save money, finding a carpool partner, stressful driving situations, and traveling on congested corridors also were factors considered. Survey findings also revealed that some CFC participants were on the verge of trying a commuting alternative and that the CFC incentive was final prompt needed to motivate these commuters to try alternative modes.

The majority of respondents indicated that outside circumstances such as changes in schedules or work locations, or the loss of a carpool partner, rather than inconvenience or dissatisfaction with using commute alternatives or the loss of the CFC incentive, were the primary reasons they reduced or stopped using their primary commute alternative. Some of the participants who stopped using their primary commute alternative when they finished the program began using other alternative modes for the first time. This finding suggests CFC program participation increased commuters' awareness of commuting alternatives and made them more receptive to using a range of alternative modes.

RECOMMENDATIONS

The ultimate objective of the Cash for Commuters program is to encourage commuters who are driving alone to shift to alternative commute modes. The survey findings presented above clearly show that the program is having its desired effect. As a result, The Clean Air Campaign and other organizations aiming to change individual travel behavior and encourage use of alternative modes should consider continuing to implement similar programs. Implementation of the following recommendations, in particular, can further enhance the Cash for Commuters program:

- Continue to track the participants of the October 2002 - February 2003 Cash for Commuters program to assess their continued use of commute alternatives over a longer time period. Insight into participants' long-term behavior changes will help provide guidance on the ability of the CFC program to produce sustained alternative mode use and, therefore, sustained transportation and air quality benefits.

- The high rate of respondents (93%) who continued using an alternative mode following completion of their program enrollment period suggests it is unnecessary to contact participants immediately after their enrollment period to determine if they need further assistance to maintain commute alternative use. However, providing additional information to participants at program enrollment that will encourage continued alternative mode use beyond the participation period may be helpful. For example, it might be useful to provide information about how to find a new carpool partner or information on other commuting alternatives, should a commuter lose their carpool partner following participation in the program. Many respondents cited lose of carpool partner as a reason for discontinuing a carpool after their incentive period ended.

- Continue to carefully check the accuracy of travel applications and logs submitted by participants. Program guidelines prohibit commuters from participating in the CFC program if

they already use a commute alternative as a typical means for traveling to work. It may be necessary to improve the education of employer supervisors about eligibility criteria. The prior use of alternative modes by one-quarter of the respondents (27%) before enrolling in the program may be attributed to commuters misinterpreting program rules or participants providing false information.

- Continue to implement periodic surveys of Cash for Commuters program participants, including participants of the 2003 Smog Season Cash for Commuters Program Survey, to assess short- and long- term behavior changes and program influences. When appropriate, comparisons should be made between previous Cash for Commuters survey findings to gain further insight into the factors motivating commute changes. Ultimately, the cost effective of the Cash for Commuters program can be compared to other voluntary emission reduction efforts to determine which programs provide the greatest travel and air quality emission benefits at the lowest cost.

APPENDIX A – FINAL SURVEY

Demo = cfcdemo
Survey = cfc03

The Clean Air Campaign
Cash for Commuters Survey – Final (7/23/2003)

Hello, may I speak to _____? (NAME FROM THE SCREEN)

My name is _____ calling from CIC Research on behalf of the Georgia Department of Transportation and The Clean Air Campaign. We selected your name at random from the list of commuters who recently participated in the $3 per day Cash for Commuters incentive program sponsored by The Clean Air Campaign. Today we're conducting a short survey to learn about your experience with the Cash for Commuters program. The survey takes less than 10 minutes to complete and your responses will remain confidential. Can you help us out?

Q1 First, do you remember participating in the $3 per day Cash for Commuters incentive program.

1 Yes
2 No (THANK AND TERMINATE)
3 Don't Remember (THANK AND TERMINATE)

Q2 And I understand your 3-month enrollment period has ended. Is this correct?

1 Yes
2 No (THANK AND TERMINATE)
3 Don't Remember (THANK AND TERMINATE)

Q3 In what month did it end?

1 December
2 January
3 February
4 March
5 April
6 May
7 June
8 Don't Remember

COMMUTE PATTERNS

Now, I'd like to ask some questions about your commute during three time periods. I'll ask first about your commute now, then about your commute during the time you were enrolled in the Cash for Commuters program, and finally about your commute before you enrolled in the program.

General Work Schedule

Q4 Let's start with your current commute. If you work more than one job, please answer about your commute to your primary job. First, in a typical week, how many days are you assigned to work?

____ days
____ Not currently working (**THANK AND TERMINATE**)

Q5 And how many miles do you usually travel from home to work ONE WAY? (IF DIFFERENT ROUTES OR DIFFERENT MODES say: Well, what would you say is your average ONE WAY commuting distance?)

_____ one way miles

Q6 Now I have a few questions about your work week. Do you currently work full-time or part-time?
1 Full-time (35 hrs or more) (CONTINUE)
2 Part-time (less than 35 hrs) (SKIP TO Q8)
3 Other (SPECIFY _____) (SKIP TO Q8)

Q7 Some employers have non-standard or compressed work schedules (e.g., full-time work week in fewer than five days). In a typical week, do you use any of the following nonstandard or compressed schedules?

1 4/40 (4 10-hour days per week, 40 hours)
2 9/80 (9 days every 2 weeks, 80 hours)
3 3/36 (3 12-hour days per week, 36 hours)
4 Other (SPECIFY_____)
5 No, I work a 5-day, 40-hour, full-time schedule; can be flex-time or telework

Q8 Next, I'm going to ask about your travel to work. First, would you consider last week to be a typical commuting week?
1 yes (ASK Q9, THEN SKIP TO Q11) 2 no (SKIP TO Q10)

Current Commute

Q9 Now, thinking about LAST WEEK, how did you get to work each day. Let's start with Monday?… How about Tuesday?… Wednesday? … Thursday?… Friday?

(IF Q7 = 1, 2, OR 3 AND RESPONDENT DOES NOT MENTION "CWS day off" (RESPONSE 1), ASK:) "You said you typically work a compressed work schedule. Did you have a compressed work schedule day off last week?"

(IF ALL DAYS IN Q4 ARE ACCOUNTED FOR BY MODES 1-9 IN Q9, CATI WILL AUTOFILL SAT & SUN WITH CODE 10 AND SKIP TO Q11; OTHERWISE CONTINUE)

Are you regularly assigned to work on Saturday or Sunday? (IF YES, ASK) "and how did you travel to work on these days? (AND RECORD ANSWER AS GIVEN.)

(IF RESPONDENT IS NOT ASSIGNED TO WORK ON SATURDAY OR SUNDAY, RECORD "DID NOT WORK")

(IF RESPONDENT MENTIONS TWO MODES FOR ANY DAY, SAY, which type of transportation did you use for the longest distance portion of your trip?).

(IF RESPONDENT MENTIONS "TELEWORK / TELECOMMUTE" OR "COMPRESSED WORK SCHEDULE DAY OFF" FOR SATURDAY OR SUNDAY, SAY):, Is this a regularly assigned

work day for you? (IF "YES," RECORD ANSWER AS GIVEN. IF "NO," RECORD "DID NOT WORK.")

(IF ALL DAYS IN Q4 ARE ACCOUNTED FOR BY MODES 1-9 IN Q9 BEFORE ALL DAYS ARE COUNTED, ASK): You said you typically work only (number of days reported in Q4) per week. Were the days I haven't asked you about regular days off for you last week? (IF RESPONSE IS YES, CATI WILL AUTOFILL REMAINING DAYS WITH CODE 10; OTHERWISE CONTINUE AND RECORD MODES USED FOR THOSE DAYS)

(IF RESPONDENT MENTIONS "SICK, VACATION, HOLIDAY" (RESPONSE 11) FOR ANY DAY, CODE RESPONSE 11, THEN ASK): "If you had worked that day, how would you likely have traveled to work?" AND CODE ADDITIONAL MODE RESPONSE FOR THAT DAY.)

	Mode Used Monday – Sunday						
Mode/days used last week	M	Tu	W	Th	F	Sa	Su
1 Compressed work schedule day off	M	Tu	W	Th	F	Sa	Su
2 Telework / Telecommute	M	Tu	W	Th	F	Sa	Su
3 drive alone in your car or motorcycle	M	Tu	W	Th	F	Sa	Su
4 carpool, including w/family member 16 or older	M	Tu	W	Th	F	Sa	Su
5 vanpool with co-workers or others who work nearby	M	Tu	W	Th	F	Sa	Su
6 ride a bus or shuttle	M	Tu	W	Th	F	Sa	Su
7 ride a MARTA train	M	Tu	W	Th	F	Sa	Su
8 walk	M	Tu	W	Th	F	Sa	Su
9 bicycle	M	Tu	W	Th	F	Sa	Su
10 Did not work – regular day off (non-CWS)	M	Tu	W	Th	F	Sa	Su
11 Did not work – sick, vacation, holiday, other non-regular day off, non-CWS day off (PROMPT FOR TRAVEL ON NON-SICK,VACATION, HOLIDAY DAY OFF)	M	Tu	W	Th	F	Sa	Su

SKIP TO Q11

Q10 Thinking about a TYPICAL WORK WEEK, how many days would you usually …?

(IF Q7 = 1, 2, OR 3 ASK RESPONSE 1, OTHERWISE, SKIP TO RESPONSE 2)

(WHEN NUMBER OF DAYS REPORTED IN Q10 = NUMBER OF DAYS REPORTED IN Q4, DISCONTINUE LISTING MODES (REMAINING DAYS WILL BE RECORDED AS "DID NOT WORK"))

Mode/days typically used per week	Use mode - number of days							
	0	1	2	3	4	5	6	7
1 Have a compressed work schedule day off	0	1	2	3	4	5	6	7
2 Telework / Telecommute	0	1	2	3	4	5	6	7
3 drive alone in your car or motorcycle	0	1	2	3	4	5	6	7
4 carpool, including w/family member 16 or older	0	1	2	3	4	5	6	7
5 vanpool with co-workers or others who work nearby	0	1	2	3	4	5	6	7
6 ride a bus or shuttle	0	1	2	3	4	5	6	7
7 ride a MARTA train	0	1	2	3	4	5	6	7
8 walk	0	1	2	3	4	5	6	7
9 bicycle	0	1	2	3	4	5	6	7
10 Not work – regular day off (non-CWS)	0	1	2	3	4	5	6	7

Note: Use carpool and vanpool occupancy from placement survey
Note: Use DA Access percentage and distance from placement survey

Commute During the Incentive

Now think back to the time you were enrolled in the $3 per day Cash for Commuters incentive programs. I believe that would be the time during (month1, month2, month3 mentioned in Q3), correct?

Q11 During those months, how many days per week were you assigned to work?

____ days

Q12 During the time you were getting the incentive, did you work full-time or part-time?
1 Full-time (35 hrs or more) (CONTINUE)
2 Part-time (less than 35 hrs) (SKIP TO Q14)
3 Other (SPECIFY _____) (SKIP TO Q14)

Q13 And in a typical week during that time, did you use any of the following nonstandard or compressed schedules?

1 4/40 (4 10-hour days per week, 40 hours)
2 9/80 (9 days every 2 weeks, 80 hours)
3 3/36 (3 12-hour days per week, 36 hours)
4 Other (SPECIFY _____)
5 No, I worked a standard, 5-day, 40-hour, full-time schedule

Q14 Thinking about a TYPICAL WORK WEEK during the months you were in the Cash for Commuters program, how many days per week would you usually …?

(IF Q13 = 1, 2, OR 3 ASK RESPONSE 1, OTHERWISE, SKIP TO RESPONSE 2)

(WHEN NUMBER OF DAYS REPORTED IN Q14 = NUMBER OF DAYS REPORTED IN Q11, DISCONTINUE LISTING MODES (REMAINING DAYS WILL BE RECORDED AS "DID NOT WORK")

Mode/days typically used per week	Use mode - number of days							
	0	1	2	3	4	5	6	7
1 Compressed work schedule day off	0	1	2	3	4	5	6	7
2 Telework / Telecommute	0	1	2	3	4	5	6	7
3 drive alone in your car or motorcycle	0	1	2	3	4	5	6	7
4 carpool, including w/family member 16 or older	0	1	2	3	4	5	6	7
5 vanpool with co-workers or others who work nearby	0	1	2	3	4	5	6	7
6 ride a bus or shuttle	0	1	2	3	4	5	6	7
7 ride a train or subway	0	1	2	3	4	5	6	7
8 walk	0	1	2	3	4	5	6	7
9 bicycle	0	1	2	3	4	5	6	7
10 Did not work – regular day off, non-CWS	0	1	2	3	4	5	6	7

Note: Use carpool and vanpool occupancy from placement survey
Note: Use DA Access percentage and distance from placement survey

TEST TO COMPARE ALT MODE USE DURING ENROLLMENT PERIOD (Q14) TO CURRENT ALT MODE USE (Q9/Q10)

DEFINE ALT MODE USED MOST FREQUENTLY IN Q14 = PRIMARY ALT MODE

RESPONDENT STOPPED USING ALT MODE OR DID NOT USE THE MODE LAST WEEK:
IF DAYS USING PRIMARY ALT MODE IN Q9/Q10 = 0, ASK Q15 – Q18, THEN SKIP TO Q21

RESPONDENT REDUCED NUMBER OF DAYS USING ALT MODE:
IF DAYS USING PRIMARY ALT MODE IN Q9/Q10 GT 0, BUT < DAYS USING PRIMARY ALT MODE IN Q14, ASK Q19, THEN SKIP TO Q21

RESPONDENT CONTINUED ALT MODE SAME NUMBER OF DAYS AS DURING PROGRAM:
IF DAYS USING PRIMARY ALT MODE IN Q9/Q10 >= DAYS USING PRIMARY ALT MODE IN Q14, AUTOFILL Q15 AS WEEKS BETWEEN END OF ENROLLMENT PERIOD AND CURRENT MONTH and ASK Q20

Q15 You said you do not currently carpool, vanpool, ride the bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14). How long did you continue to carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14) after you stopped receiving the $3 per day incentive?

_____ WEEKS (SKIP TO Q18) **[IF RESPONDENT ANSWERS IN MONTHS, CONVERT RESPONSE TO WEEKS**]

_____ Still use alt mode occasionally (ASK Q16)

Q16 How many days would you say you now carpool, vanpool, ride the bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14) in a typical **month**?

_____ DAYS PER MONTH

IF Q16 LT (4 X DAYS USING PRIMARY ALT MODE IN Q14), ASK Q17
OTHERWISE, SKIP TO Q20

Q17 What are the primary reasons you reduced the number of days you carpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14)? (DO NOT READ RESPONSES)

1 I wasn't receiving start-up program incentive anymore
2 Lost my carpool partner
3 I started using another alternative mode
4 My work schedule/work location changed
5 Other options became available (got car, got free parking, etc.)
6 I had other commitments to attend to be before/after work
7 I had errands to run during my work day
8 I don't like to carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14)
9 Too inconvenient
10 Too expensive
11 Other (specify)_____
12 Don't know/refused

SKIP TO Q21

Q18 What were the primary reasons you stopped carpooling, vanpooling, riding a bus, riding a train, biking, walking, or teleworking (PRIMARY ALT MODE FROM Q14)? (DO NOT READ RESPONSES)

1 I wasn't receiving start-up program incentive anymore
2 Lost my carpool partner
3 I started using another alternative mode
4 My work schedule/work location changed
5 Other options became available (got car, got free parking, etc.)
6 I had other commitments to attend to be before/after work
7 I had errands to run during my work day
8 I don't like to carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14)
9 Too inconvenient
10 Too expensive
11 Dissatisfied with the $3 per day Cash for Commuters program
12 Other (SPECIFY _____)
13 Don't know/refused

SKIP TO Q21

Q19 You said you've reduced the number of days you carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14) to work since you stopped receiving the $3 per day incentive. What are the primary reasons you reduced the days you carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14)? (DO NOT READ RESPONSES)

1 I wasn't receiving start-up program incentive anymore
2 Lost my carpool partner
3 I started using another alternative mode
4 My work schedule/work location changed
5 Other options became available (got car, got free parking, etc.)
6 I had other commitments to attend to be before/after work
7 I had errands to run during my work day
8 I don't like to carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14)
9 Too inconvenient
10 Too expensive
11 Other (SPECIFY _____)
12 Don't know/refused

SKIP TO Q21

Q20 What are the primary reasons you continued to carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14) after you stopped receiving the $3 per day incentive? DO NOT READ RESPONSES

1 I enjoy carpooling, vanpooling, riding a bus, riding a train, biking, walking, or teleworking (PRIMARY ALT MODE FROM Q14)
2 I became more environmentally aware/responsible
3 More convenient for me to continue
4 I like the incentives my employer offers/my employer offered more incentives
5 I no longer have a car/parking available to me
6 My work schedule/location changed
7 Too expensive not to carpool, vanpool, ride a bus, ride a train, bike, walk, or telework (PRIMARY ALT MODE FROM Q14)
8 Traffic on the freeway(s) is worse
9 HOV/toll lanes
10 People I carpool with kept the same number of days they carpool
11 Other (SPECIFY_____)
12 Don't know/refused

Commute Before the Incentive

Now I want to ask about your commute for one more time period, the time BEFORE you enrolled in the Cash for Commuters incentive program. I believe that would be the time before (October, November, December, January, February, March) (FROM DATABASE).

Q21 During the time before (MONTH), how many days per week were you assigned to work?
____ days
____ Not working then (SKIP TO Q25)

Q22 During the time you were getting the incentive, did you work full-time or part-time?

1 Full-time (35 hrs or more) (CONTINUE)
2 Part-time (less than 35 hrs) (SKIP TO Q24)
3 Other (SPECIFY _____) (SKIP TO Q24)

Q23 And did you use any of the following nonstandard or compressed schedule then?

1 4/40 (4 10-hour days per week, 40 hours)
2 9/80 (9 days every 2 weeks, 80 hours)
3 3/36 (3 12-hour days per week, 36 hours)
4 Other (SPECIFY_____)
5 No, I worked a standard, 5-day, 40-hour, full-time schedule

Q24 Thinking about a TYPICAL WORK WEEK before you participated in the Cash for Commuters program, how many days would you usually …?

(IF Q23 = 1, 2, OR 3 ASK RESPONSE 1, OTHERWISE, SKIP TO RESPONSE 2)

(WHEN NUMBER OF DAYS REPORTED IN Q24 = NUMBER OF DAYS REPORTED IN Q21, DISCONTINUE LISTING MODES (REMAINING DAYS WILL BE RECORDED AS "DID NOT WORK"))

	Use mode - number of days							
Mode/days typically used per week	0	1	2	3	4	5	6	7
1 Have a compressed work schedule day off	0	1	2	3	4	5	6	7
2 Telework / Telecommute	0	1	2	3	4	5	6	7
3 drive alone in your car or motorcycle	0	1	2	3	4	5	6	7
4 carpool, including w/family member 16 or older	0	1	2	3	4	5	6	7
5 vanpool with co-workers or others who work nearby	0	1	2	3	4	5	6	7
6 ride a bus or shuttle	0	1	2	3	4	5	6	7
7 ride a MARTA train	0	1	2	3	4	5	6	7
8 walk	0	1	2	3	4	5	6	7
9 bicycle	0	1	2	3	4	5	6	7
10 Did not work – regular day off, non-CWS	0	1	2	3	4	5	6	7

Note: Use carpool and vanpool occupancy from placement survey
Note: Use DA Access percentage and distance from placement survey

Influence

Q25 You said that while you were in the Cash for Commuters program, you were carpooling, vanpooling, riding a bus, biking, walking, or teleworking (PRIMARY ALT MODE FROM Q14). What factors led you to start carpooling, vanpooling, riding a bus, riding a train, biking, walking, or teleworking (PRIMARY ALT MODE FROM Q14)? (Allow multiple responses – DO NOT READ RESPONSES; PROBE FOR ADDITIONAL RESPONSES)

1 Availability of the $3 daily Cash for Commuters program
2 Other employer incentive
3 To save money
4 Less stressful than driving
5 Congestion level
6 HOV/toll road
7 Lost other mode (car no longer available)
8 Moved
9 Changed jobs
10 Other (SPECIFY_____)

Q26 How important was the Cash for Commuters program to your decision to start carpooling, riding a bus, riding a train, biking, walking, or teleworking (PRIMARY ALT MODE FROM Q14) – was it very important, somewhat important, or not important?

1 Very important
2 Somewhat important
3 Not important

Q27 Without the Cash for Commuters program, how likely would you have been to start carpooling, riding a bus, riding a train, biking, walking, or teleworking (PRIMARY ALT MODE FROM Q14) would you have been very likely, somewhat likely, or not likely to start?

1 Very likely
2 Somewhat likely
3 Not likely
4 Don't know/refused

IF Q25 = 1 (THE ONLY RESPONSE) AND Q26 =1 AND Q27 = 1 OR 2, ASK:

Q27a Please let me clarify something: You indicated that the Cash for Commuters program was the only factor that led you to start (PRIMARY ALT MODE FROM Q14), however you also said that you would have been (RESPONSE FROM Q27) to start (PRIMARY ALT MODE FROM Q14) even without the Cash for Commuters program. Can you tell me more about that? _____

_____

_____

Q28 Have you used any commute information or services other than the $3 per day incentive, provided by your employer or another organization? (IF "YES") What information or services? (ALLOW MULTIPLE RESPONSES) (DO NOT READ RESPONSES)

1 No, I have not used any other commute information or services (SKIP TO Q30)
2 Carpooling/vanpooling information
3 Ridematching service / matchlist
4 Transit information or schedules
5 Preferential parking for carpools/vanpools
6 Guaranteed Ride Home (emergencies or overtime)
7 Discounted transit passes / free transit passes
8 Vanpool/carpool subsidy or cash incentive
9 Prizes or contests for employees who do not drive alone
10 Bicycle racks /other bike services
11 Shuttle bus to MARTA or other location
12 Other (SPECIFY _____)

Q29 Was any commute information or service you received more important than the $3 per day incentive in influencing your decision to start carpooling, vanpooling, riding a bus, riding a train, biking, walking, teleworking (PRIMARY ALT MODE FROM Q15)? (ALLOW MULTIPLE RESPONSES) (DO NOT READ RESPONSES)

1 No, the $3 per day incentive was the most important
2 Carpooling/vanpooling information
3 Ridematching service / matchlist
4 Transit information or schedules
5 Preferential parking for carpools/vanpools
6 Guaranteed Ride Home (emergencies or overtime)
7 Discounted transit passes / free transit passes
8 Vanpool/carpool subsidy or cash incentive
9 Prizes or contests for employees who do not drive alone
10 Bicycle racks /other bike services
11 Shuttle bus to MARTA or other location
12 Other (SPECIFY _____)

Demographics

Now just a few last questions to help us group your answers with those of others

Q30 Do you work for government, private industry, or a non-profit group or organization?
1 Federal government
2 State or local government
3 Private industry
4 Non-profit organization
5 Other, not sure (VOLUNTEERED) (SPECIFY _____)
6 Refused (VOLUNTEERED)

Q31 Which of the following best describes your ethnic background. Is it . . . (READ CHOICES)
1 African American/Black American
2 American Indian/Native American
3 Asian American/Pacific Islander
4 Caucasion/White
5 Hispanic American/Latino
6 Other (VOLUNTEERED) (SPECIFY _____)
7 Refused (VOLUNTEERED)

Q32 And finally, which category includes your average household yearly income? Please stop me when I read the total category that best describes your total household income.

1 Under $10,000
2 $10,000 but less than $20,000
3 $20,000 but less than $30,000
4 $30,000 but less than $40,000
5 $40,000 but less than $50,000
6 $50,000 but less than $60,000
7 $60,000 but less than $70,000
8 $70,000 but less than $80,000
9 $80,000 but less than $90,000
10 $90,000 but less than $100,000
11 $100,000 or more
12 Refused (VOLUNTEERED)

Thank you very much for your time and cooperation!

(DO NOT READ:)
Q33 Was person interviewed a male or female ?
1 Male
2 Female

APPENDIX B – TRAVEL AND EMISSION REDUCTION CALCULATIONS

	CP	VP	TR	Bike/Walk	TW/CWW	Total
Placement Rates						
New	60.3%	0.7%	23.8%	4.3%	4.3%	93.4%
Retained	4.0%	0.0%	1.7%	0.3%	0.7%	6.7%
Total	64.3%	0.7%	25.5%	4.6%	5.0%	100.1%
Placements						
New	1,089	13	430	78	78	1,687
Retained	72	0	31	5	13	121
Total	1,161	13	461	83	90	1,808
VT Reduced						
New	(607)	(12)	(604)	(73)	(45)	(1,342)
Retained	31	-	12	4	-	48
Total	(575)	(12)	(592)	(69)	(45)	(1,294)
VMT Reduced						
New	(15,462)	(418)	(14,722)	(280)	(1,040)	(31,923)
Retained	1,085	-	322	108	-	1,515
Total	(14,377)	(418)	(14,401)	(172)	(1,040)	(30,407)
Emissions Reduced						
New (total)						
NOx	(0.0188)	(0.0004)	(0.0139)	(0.0004)	(0.0013)	(0.0348)
VOC	(0.0218)	(0.0005)	(0.0160)	(0.0004)	(0.0015)	(0.0403)
Retained (total)						
NOx	0.0013	0.0000	0.0003	0.0001	0.0000	0.0017
VOC	0.0015	0.0000	0.0004	0.0002	0.0000	0.0020
Emisison Totals						
NOx	(0.0176)	(0.0004)	(0.0135)	(0.0002)	(0.0013)	(0.0331)
VOC	(0.0203)	(0.0005)	(0.0157)	(0.0003)	(0.0015)	(0.0383)
Total	(0.0379)	(0.0010)	(0.0292)	(0.0005)	(0.0028)	(0.0714)

CFC Program - Carpool Calculation

Program Participants	1806	
Carpool Placement Rate		
New Placement Rate	60.3%	
Retained Placement Rate	4.0%	
Estimate number of new placements	1089	= CFC participants x New Placement Rate
Estimate number of retained placements	72	= CFC participants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(0.56)	= daily trips reduced / total new placements
Retained VTR Factor	0.43	= daily trips reduced / total retained placements

CFC Program - Carpool Calculation Cont.

Carpool VT Reduced (daily)	
(placements x VTR factor)	
(new)	(607)
(retained)	31
One-way Trip distance (mile) - New	25
One-way Trip distance (mile) - Retained	35
Carpool VMT Reduced (daily)	
(new)	(15462)
(retained)	1085
Adjust VT/VMT for SOV Access	
Percent SOV Access - New	11%
Adjusted VT reduced - New	(542)
Access distance (miles) - New	9.60
Adjusted VMT reduced - New	(14839)
Percent SOV Access - Retained	43%
Adjusted VT reduced - Retained	18
Access distance (miles) - Retained	6.90
Adjusted VMT reduced - Retained	993

CFC Program - Carpool Calculation Cont.

Emissions Reduced	
Grams (Daily)	
NOx Reduced - New Users	(17065)
VOC Reduced - New Users	(19765)
NOx Reduced - Retained Users	1142
VOC Reduced - Retained Users	1323
Yearly	
NOx Reduced - New Users	(4266132)

VOC Reduced - New Users	(4941294)
NOx Reduced - Retained Users	285576
VOC Reduced - Retained Users	330772

KG (Daily)

NOx Reduced - New Users	(17.06)
VOC Reduced - New Users	(19.77)
NOx Reduced - Retained Users	1.14
VOC Reduced - Retained Users	1.32

Tons (Daily)

NOx Reduced - New Users	(0.0188)
VOC Reduced - New Users	(0.0218)
NOx Reduced - Retained Users	0.0013
VOC Reduced - Retained Users	0.0015

Total Emissions Reduced (Tons/Day)

NOx Reduced - (New + Retained Users)	(0.0176)
VOC Reduced - (New + Retained Users)	(0.0203)

CFC Program - Vanpool Impact

Program Participants	1,806	
Vanpool Placement Rate		
New Placement Rate	0.7%	
Retained Placement Rate	0.0%	
Estimate number of new placements	13	= CFC participants x New Placement Rate
Estimate number of retained placements	-	= CFC participants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(0.99)	= daily trips reduced / total new placements
Retained VTR Factor	-	= daily trips reduced / total retained placements

CFC Program - Vanpool Impact Cont.

Vanpool VT Reduced (daily)	
(placements x VTR factor)	
(new)	(12)
(retained)	-
One-way Trip distance (mile) - New	34
One-way Trip distance (mile) - Retained	-
Vanpool VMT Reduced (daily)	
(new)	(418)
(retained)	-
Adjust VT/VMT for SOV Access	
Percent SOV Access - New	83.1%
Adjusted VT reduced - New	(2)
Access distance (miles) - New	6.6
Adjusted VMT reduced - New	(350)
Percent SOV Access - Retained	83.1%
Adjusted VT reduced - Retained	-
Access distance (miles) - Retained	6.6
Adjusted VMT reduced - Retained	-

CFC Program - Vanpool Impact Cont.

Emissions Reduced	
Grams (Daily)	
NOx Reduced - New Users	(402)
VOC Reduced - New Users	(466)
NOx Reduced - Retained Users	-
VOC Reduced - Retained Users	-

Yearly

NOx Reduced - New Users	(100,595)
VOC Reduced - New Users	(116,515)
NOx Reduced - Retained Users	-
VOC Reduced - Retained Users	-

KG (Daily)

NOx Reduced - New Users	(0.40)
VOC Reduced - New Users	(0.47)
NOx Reduced - Retained Users	-
VOC Reduced - Retained Users	-

Tons (Daily)

NOx Reduced - New Users	(0.0004)
VOC Reduced - New Users	(0.0005)
NOx Reduced - Retained Users	-
VOC Reduced - Retained Users	-

Total Emissions Reduced (Tons/Day)

NOx Reduced - (New + Retained Users)	(0.0004)
VOC Reduced - (New + Retained Users)	(0.0005)

CFC Database - Transit Impact

Program Participants	1,806	
Transit Placement Rate		
New placement rate	23.8%	
Retained placement rate	1.7%	
Estimate number of new placements	430	= CFC participants x New Placement Rate
Estimate number of retained placements	31	= CFC participants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(1.41)	= daily trips reduced / total new placements
Retained VTR Factor	0.40	= daily trips reduced / total retained placements

CFC Database - Transit Impact Cont.

Transit VT Reduced (daily)		
(placements x VTR factor)		
	(new)	(604)
	(retained)	12
One-way Trip distance (mile) - New		24
One-way Trip distance (mile) - Retained		26
Transit VMT reduced (daily)		
	(new)	(14,722)
	(retained)	322
Adjust VT/VMT for SOV access		
Percent SOV Access - New		69.8%
Adjusted VT reduced - New		183
Access distance (miles) - New		9.0
Adjusted VMT reduced - New		(10,926)
Percent SOV Access - Retained		64.7%
Adjusted VT reduced - Retained		4
Access distance (miles) - Retained		8.5
Adjusted VMT reduced - Retained		254

CFC Database - Transit Impact Cont.

Emissions Reduced	
Grams (Daily)	
NOx Reduced - New Users	(12,565)
VOC Reduced - New Users	(14,553)
NOx Reduced - Retained Users	292
VOC Reduced - Retained Users	339

Yearly	
NOx reduced - new users	(3,141,176)
VOC reduced - new users	(3,638,301)
NOx reduced - retained users	73,088
VOC reduced - retained users	84,655
KG (Daily)	
NOx reduced - new users	(12.56)
VOC reduced - new users	(14.55)
NOx reduced - retained users	0.29
VOC reduced - retained users	0.34
Tons (Daily)	
NOx reduced - new users	(0.0139)
VOC reduced - new users	(0.0160)
NOx reduced - retained users	0.0003
VOC reduced - retained users	0.0004
Total Emissions Reduced (Tons/Day)	
NOx reduced - (new + retained users)	(0.0135)
VOC reduced - (new + retained users)	(0.0157)

CFC Database - Bike and Walk Impact

Program Participants	1,806	
Bike and Walk Placement Rate		
New placement rate	4.3%	
Retained placement rate	0.3%	
Estimate number of new placements	78	= CFC participants x New Placement Rate
Estimate number of retained placements	5	= CFC participants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(0.94)	= daily trips reduced / total new placements
Retained VTR Factor	0.80	= daily trips reduced / total retained placements

CFC Database - Bike and Walk Impact Cont.

Bike and Walk VT Reduced (daily)		
(placements x VTR factor)		
	(new)	(73)
	(retained)	4
One-way Trip distance (mile) - New		4
One-way Trip distance (mile) - Retained		25
Bike and Walk VMT reduced (daily)		
	(new)	(280)
	(retained)	108
Adjust VT/VMT for SOV access		
Percent SOV Access - New		NA
Adjusted VT reduced - New		NA
Access distance (miles) - New		NA
Adjusted VMT reduced - New		NA
Percent SOV Access - Retained		NA
Adjusted VT reduced - Retained		NA
Access distance (miles) - Retained		NA
Adjusted VMT reduced - Retained		NA

CFC Database - Bike and Walk Impact Cont.

Emissions Reduced	
Grams (Daily)	
NOx Reduced - New Users	(323)
VOC Reduced - New Users	(374)
NOx Reduced - Retained Users	125
VOC Reduced - Retained Users	144

Yearly	
NOx reduced - new users	(80,632)
VOC reduced - new users	(93,393)
NOx reduced - retained users	31,154
VOC reduced - retained users	36,084
KG (Daily)	
NOx reduced - new users	(0.32)
VOC reduced - new users	(0.37)
NOx reduced - retained users	0.12
VOC reduced - retained users	0.14
Tons (Daily)	
NOx reduced - new users	(0.0004)
VOC reduced - new users	(0.0004)
NOx reduced - retained users	0.0001
VOC reduced - retained users	0.0002
Total Emissions Reduced (Tons/Day)	
NOx reduced - (new + retained users)	(0.0002)
VOC reduced - (new + retained users)	(0.0003)

CFC Database - Telecommute and Compressed Work Week Impact

Program Participants	1,806	
TC and CWW Placement Rate		
New placement rate	4.3%	
Retained placement rate	0.7%	
Estimate number of new placements	78	= CFC participants x New Placement Rate
Estimate number of retained placements	13	= CFC participants x Retained Placement Rate

Vehicle Trip Calculation (comparison of current and prior modes)

New VTR Factor	(0.58)	= daily trips reduced / total new placements
Retained VTR Factor	-	= daily trips reduced / total retained placements

CFC Database - Telecommute and Compressed Work Week Impact Cont.

TC and CWW VT Reduced (daily)		
(placements x VTR factor)		
	(new)	(45)
	(retained)	-
One-way Trip distance (mile) - New		23
One-way Trip distance (mile) - Retained		29
TC and CWW VMT reduced (daily)		
	(new)	(1,040)
	(retained)	-
Adjust VT/VMT for SOV access		
Percent SOV Access - New		NA
Adjusted VT reduced - New		NA
Access distance (miles) - New		NA
Adjusted VMT reduced - New		NA
Percent SOV Access - Retained		NA
Adjusted VT reduced - Retained		NA
Access distance (miles) - Retained		NA
Adjusted VMT reduced - Retained		NA

CFC Database -Telecommute and Compressed Work Week Impact Cont.

Emissions Reduced	
Grams (Daily)	
NOx Reduced - New Users	(1,196)
VOC Reduced - New Users	(1,385)
NOx Reduced - Retained Users	-
VOC Reduced - Retained Users	-

Yearly

NOx reduced - new users	(298,905)
VOC reduced - new users	(346,210)
NOx reduced - retained users	-
VOC reduced - retained users	-

KG (Daily)

NOx reduced - new users	(1.20)
VOC reduced - new users	(1.38)
NOx reduced - retained users	-
VOC reduced - retained users	-

Tons (Daily)

NOx reduced - new users	(0.0013)
VOC reduced - new users	(0.0015)
NOx reduced - retained users	-
VOC reduced - retained users	-

Total Emissions Reduced (Tons/Day)

NOx reduced - (new + retained users)	(0.0013)
VOC reduced - (new + retained users)	(0.0015)

APPENDIX C – REGIONAL TRANSPORTATION AND BUSINESS LEADER SURVEY – MARGIN OF ERROR AND STATISTICAL SIGNIFICANCE DIFFERENCE FOR KEY SURVEY QUESTIONS

REGIONAL TRANSPORTATION AND BUSINESS LEADER SURVEY - MARGIN OF ERROR AND STATISITCAL SIGNIFICANCE DIFFERENCES FOR KEY SURVEY QUESTIONS

REGIONAL TRANSPORTATION SURVEYS

Question: What was the issue you saw, read or heard iformation about?
(Modified in December 2002, from "advertising" recall to "information" recall.)

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
June 2000	274	6%	NA	NA
Sept 2000	267	6%	June 2000 - Sep 2000	8%
Nov 2000	259	6%	Sep 2000 - Nov 2000	9%
May 2001	943	3%	Nov 2000 - May 2001	7%
Dec 2001	477	5%	May 2001 - Dec 2001	6%
Dec 2002	960	3%	Dec 2001 - Dec 2002	5%
Overall	NA	NA	June 2000 - Dec 2002	7%

Question: Please tell me what you recall seeing, hearing or reading any information in the Atlanta area in the past six months about?
(Modified in December 2002, from "advertising" recall to "information" recall.)

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
June 2000	603	4%	NA	NA
Sept 2000	600	4%	June 2000 - Sep 2000	6%
Nov 2000	600	4%	Sep 2000 - Nov 2000	6%
May 2001	1501	3%	Nov 2000 - May 2001	5%
Dec 2001	1000	3%	May 2001 - Dec 2001	4%
Dec 2002	1500	3%	Dec 2001 - Dec 2002	4%
Overall	NA	NA	June 2000 - Dec 2002	5%

Question: I'm going to read you a list of programs and services available here in the Atlanta area to help commuters. As I read each one, please tell me if you have heard of the service or not...?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
Dec 2001	1000	3%	NA	NA
Dec 2002	1500	3%	Dec 2001 - Dec 2002	4%

Question: Specifically, what services does the Clean Air Campaign provide? What other services does the Clean air Campaign provide?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
Dec 2001	413	5%	NA	NA
Dec 2002	748	4%	Dec 2001 - Dec 2002	6%

Question: Have you contacted or been contacted by anyone regarding Public Transit Schedule/Route Information?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
December 2001	780	4%	NA	NA
December 2002	1065	3%	Dec 2001 - Dec 2002	5%

Question: Have you contacted or been contacted by anyone regarding Transit Subsidies?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
December 2001	280	6%	NA	NA
December 2002	495	4%	Dec 2001 - Dec 2002	7%

Question: Have you contacted or been contacted by anyone regarding Free Rides Home?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
December 2001	120	9%	NA	NA
December 2002	165	8%	Dec 2001 - Dec 2002	12%

Question: Have you contacted or been contacted by anyone regarding Carpool or Vanpool Matching?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
December 2001	510	4%	NA	NA
December 2002	675	4%	Dec 2001 - Dec 2002	6%

Question: Have you contacted or been contacted by anyone regarding1-877-CLEANAIR or cleanaircampaign.com?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
December 2001	620	4%	NA	NA
December 2002	840	3%	Dec 2001 - Dec 2002	5%

Question: Have you contacted or been contacted by anyone regarding 1-87-RIDEFIND?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
December 2001	540	4%	NA	NA
December 2002	645	4%	Dec 2001 - Dec 2002	6%

Question: Now, I'm going to read you a list of actions that some people might take after seeing, hearing, or reading various advertisements. In the past year have you asked about flex hours/compressed work week?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
Dec 2001	778	4%	NA	NA
Dec 2002	1037	3%	Dec 2001 - Dec 2002	5%

Question: Now, I'm going to read you a list of actions that some people might take after seeing, hearing, or reading various advertisements. In the past year have you asked about transit info?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
June 2000	603	4%	NA	NA
Sept 2000	600	4%	June 2000 - Sep 2000	6%
Dec 2001	1000	3%	Sep 2000 - Dec 2001	5%
Dec 2002	1500	3%	Dec 2001 - Dec 2002	4%
Overall	NA	NA	June 2000 - Dec 2002	5%

Question: Now, I'm going to read you a list of actions that some people might take after seeing, hearing, or reading various advertisements. In the past year have you asked about teleworking?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
June 2000	603	4%	NA	NA
Sept 2000	600	4%	June 2000 - Sep 2000	6%
Dec 2001	778	4%	Sep 2000 - Dec 2001	5%
Dec 2002	1037	3%	Dec 2001 - Dec 2002	5%
Overall	NA	NA	June 2000 - Dec 2002	5%

Question: Now, I'm going to read you a list of actions that some people might take after seeing, hearing, or reading various advertisements. In the past year have you asked about carpool/vanpool partner?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
Dec 2001	1000	3%	NA	NA
Dec 2002	1500	3%	Dec 2001 - Dec 2002	4%

Question: Now, I'm going to read you a list of actions that some people might take after seeing, hearing, or reading various advertisements. In the past year have you asked about employer-based commute options?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
Dec 2002	1037	3%	NA	NA

Question: Now, I'm going to read you a list of actions that some people might take after seeing, hearing, or reading various advertisements. In the past year have you called 1-877-CLEANAIR to ask about the cash incentives?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
Dec 2002	1037	3%	NA	NA

Question: Specifically, what programs does your employer offer to employees who are interested in alternative modes of transportaion or commuting alternatives?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
December 2001	155	8%	NA	NA
December 2002	248	6%	Dec 2001 - Dec 2002	10%

BUSINESS LEADER SURVEYS

Question: Have you heard of...(1-87-RIDEFIND, 1-877-CLEANAIR,...etc.)

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	300	6%	NA	NA
October 2002	300	6%	Oct 2001 - Oct 2002	8%

Question: Have you heard of BATMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	25	20%	NA	NA
October 2002	33	17%	Oct 2001 - Oct 2002	26%

heard of Midtown

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	9	33%	NA	NA
October 2002	24	20%	Oct 2001 - Oct 2002	38%

Question: Have you heard of Downtown Area TMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	31	18%	NA	NA
October 2002	41	15%	Oct 2001 - Oct 2002	23%

Question: Have you heard of HATMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	30	18%	NA	NA
October 2002	24	20%	Oct 2001 - Oct 2002	27%

Question: Have you heard of Clifton Corridor TMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	16	25%	NA	NA
October 2002	17	24%	Oct 2001 - Oct 2002	34%

Question: Have you heard of CobbRides?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	19	23%	NA	NA
October 2002	13	27%	Oct 2001 - Oct 2002	35%

Question: Have you heard of Perimeter Transportation Coalition?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	29	18%	NA	NA
October 2002	15	25%	Oct 2001 - Oct 2002	31%

Question: Have you heard of Commuter Club?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	31	18%	NA	NA
October 2002	39	16%	Oct 2001 - Oct 2002	24%

Question: Have you or someone in your organization contacted or been contacted by Midtown Transportation Solutions?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	2	69%	NA	NA
October 2002	12	28%	Oct 2001 - Oct 2002	75%

Question: Have you or someone in your organization contacted or been contacted by BATMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	5	44%	NA	NA
October 2002	15	25%	Oct 2001 - Oct 2002	51%

Question: Have you or someone in your organization contacted or been contacted by Clifton Corridor TMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	0	NA	NA	NA
October 2002	4	%	Oct 2001 - Oct 2002	NA

Question: Have you or someone in your organization contacted or been contacted by Commuter Club?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	9	33%	NA	NA
October 2002	4	49%	Oct 2001 - Oct 2002	59%

Question: Have you or someone in your organization contacted or been contacted by HATMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	4	49%	NA	NA
October 2002	7	37%	Oct 2001 - Oct 2002	61%

Question: Have you or someone in your organization contacted or been contacted by Downtown Area TMA?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	7	37%	NA	NA
October 2002	17	24%	Oct 2001 - Oct 2002	44%

Question: Have you or someone in your organization contacted or been contacted by CobbRides?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	5	44%	NA	NA
October 2002	3	57%	Oct 2001 - Oct 2002	69%

Question: Have you or someone in your organization contacted or been contacted by Perimeter Transportation Coalition?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	6	40%	NA	NA
October 2002	3	57%	Oct 2001 - Oct 2002	70%

Question: Is your organization currently participating in Guaranteed Ride Home?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	20	22%	NA	NA
October 2002	34	17%	Oct 2001 - Oct 2002	28%

Question: Is your organization currently participating in GA Building Authority Vanpool?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	29	18%	NA	NA
October 2002	18	23%	Oct 2001 - Oct 2002	30%

Question: Is your organization currently participating in MARTA Partnership Program?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	71	12%	NA	NA
October 2002	131	9%	Oct 2001 - Oct 2002	14%

Question: Is your organization currently participating in "Commuter Choice" Federal Tax Benefits?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	28	19%	NA	NA
October 2002	74	11%	Oct 2001 - Oct 2002	22%

Question: Is your organization currently participating in 1-877-CLEANAIR & www.cleanaircampaign.com?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	NA	NA	NA	NA
October 2002	198	7%	Oct 2001 - Oct 2002	NA

Question: Is your organization currently participating in Douglas County Rideshare?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	42	15%	NA	NA
October 2002	60	13%	Oct 2001 - Oct 2002	20%

Question: Is your organization currently participating in 1-87-RIDEFIND?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	202	7%	NA	NA
October 2002	233	6%	Oct 2001 - Oct 2002	9%

Question: Is your organization currently participating in Metro Vanpool?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	80	11%	NA	NA
October 2002	117	9%	Oct 2001 - Oct 2002	14%

Question: If you were to offer Flexible Schedules, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	287	6%	NA	NA
October 2002	295	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Compressed Work Weeks, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	296	6%	NA	NA
October 2002	297	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Teleworking, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	291	6%	NA	NA
October 2002	288	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Free Rides Home, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	297	6%	NA	NA
October 2002	290	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Transit Subsidies, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	287	6%	NA	NA
October 2002	258	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Reserved Parking, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	298	6%	NA	NA
October 2002	296	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Shuttle Service, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	295	6%	NA	NA
October 2002	293	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Carpool/Vanpool Matching, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	292	6%	NA	NA
October 2002	292	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Carpool Subsidies, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	299	6%	NA	NA
October 2002	293	6%	Oct 2001 - Oct 2002	8%

Question: If you were to offer Vanpool Subsidies, how likely do you think your employees would be to take advantage of this service?

Survey Date	Population (N=)	Margin of Error	Statistical Significance Difference	
October 2001	301	6%	NA	NA
October 2002	295	6%	Oct 2001 - Oct 2002	8%